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COD LIVER OIL

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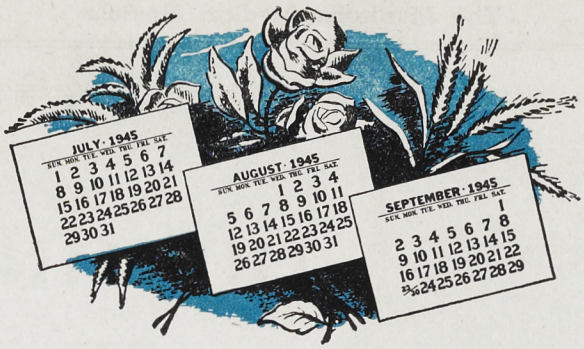
4 An extensive bibliography will be furnished to interested individuals upon request.



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The Manitoba Medical Review

Vol. 25 JULY, 1945 No. 7

Salerno

(Read before the Medical History Section of the Winnipeg Medical Society)

There are few students of the history of the present war who can forget Salerno. As the beachhead of Lieut.-Gen. Mark Clark's Anglo-American Fifth Army's invasion of Italy on Sept. 8-9, 1943, it claimed headlines throughout the world. For the next few days, when the strongly-entrenched German defenders counter-attacked and all but threw the invaders back into the sea, the headlines became deeper and blacker; but with the failure of the counter-attacks and the advance of our forces the name of Salerno disappeared from our newspapers and relapsed again into obscurity.

This was not the only moment of greatness for this pleasant city. In the middle ages the School of Salerno was noted throughout the western world for its teaching of medicine. It was known as the CIVITAS HIPPOCRATICA, and bore that name on its civic seals. The Regimen Sanitatis Salerni, a Latin poem in rhyming couplets, had an immense reputation in the Middle Ages and was translated into most European languages. The influence of the Salernitan school was strong throughout four centuries. Indeed, although its glory had departed, the university actually existed till 1811, when it was finally dissolved by an edict of the Emperor Napoleon I.

We may ask what led to the creation of a school of medicine at Salerno; what forces kept it alive; what men and women contributed to its greatness; and why it fell into obscurity.

The city is beautifuly situated on the west coast of Italy, 34 miles southeast of Naples. It has a fine port, consisting of an inner and outer harbour, and has as background graceful limestone hills. The chief industries are silk and cotton spinning and weaving. Of more interest to the troops is the good wine produced in the neighborhood.

A Roman colony was founded at Salerno (Salernum) in 194 B.C. to keep the Picentines in check. Its pleasant situation and equable climate led to some reputation as a health resort. It was casually mentioned by Horace in his Epistles (Epistles I, XVI, 1). Professor W. M. Hugill, Department of Classics, University of Manitoba, has been so kind as to elaborate on this. "It seems," he wrote in a personal communication, "that Horace had been wont to spend part of the winter season away from Rome and at Baiae, just inside Cape Misenium on the Bay of Naples. Baiae was perhaps the most famous and popular of all Roman watering places. But at the time that this epistle was written, about 21 B.C., Horace had been consulting a physician named Antonius Musa, who had become famous by curing the Emperor Augustus of a liver complaint in 23 B.C. Musa had employed a cold water treatment, instead of the previously employed hot fomentations. A lettuce diet seems to have been prescribed also (Pliny's Natural History). Why Horace had found it necessary to consult this physician is not clear, but we gather from the epistle that Musa had forbidden Horace to go to Baiae, and told him to avoid the hot vapour baths in favour there, and to seek a more vigorous clime, and had prescribed cold baths even in winter. 'Gelid cum perluor unda per medium frigus' (When I am bathed in cold water in the midst of winter). The epistle in question is written to a friend, evidently a native of the south of Italy, asking him what the winter climate is like in Velia and Salernium. Horace also inquires what the food and drinking water is like at these places. He apparently is under the impression that the air is more invigorating at Salernium than at Baiae. The epistle begins thus in Conington's translation:

> 'Of Velia and Salernium tell me, pray,
> The climate and the natives and the way:
> For Baiae now is lost to me, and I,
> Once its staunch friend, am turned its enemy,
> Through Musa's fault who makes me undergo
> His cold-bath treatment, spite of frost and snow.'

Whether Horace ever went to Salernum, or whether the cold baths had any good effect, is not revealed. Horace died in his 57th year, probably of old age, and a weak constitution. The only definite information he gives about his health is that he suffered from inflammation of the eyes, which he treated with a dark salve. He lived an easy life of leisure and was fairly temperate."

The fall of imperial Rome was brought about by the Goths from northern Europe. After the fall of the Gothic power in the 6th century, South Italy became for centuries a battleground of conflicting interests. It was a mosaic of small states, usually under the nominal rule of Byzantium and influenced by a variety of cultures. Invaders from the north seldom reached the south, and Byzantium, securely ensconced on the Adriatic seaboard, disputed the mastery with native chiefs and, from the eighth century onward, with Saracens also. The prevailing language was largely Greek, of which the colloquial speech bears traces to this

day. The imperfect grasp of the Byzantines, however, gave opportunity for entry of other tongues. Latin dialects were spoken in many places. In others, Greek dialects were replaced by forms of Arabic patois. Moreover, material and literary remains tell of a vigourous development of a Hebrew culture in this region.

In the seventh century the dominion of the Crescent had extended along the southern shores of the Mediterranean, from the Red Sea to the Atlantic. In 711 Tarik had crossed into Spain with a Berber army and gave his name to the Mount of Tarik, Gebel Tarik, the natural fortress, a name which has been corrupted into Gibraltar. This movement that carried Islam across the narrow strait of Gibraltar threw it across the wider Sicilian channel in the 8th century, and on to the mainland in the 9th. In 827 the Emir of Kairouan in Tunisia began a systematic invasion. Palermo fell in 831 and was a strong base for raids on the Italian coasts. Things moved more slowly in those days than in these, but in 846 the arms of the Crescent were carried to Rome itself. At Salerno and elsewhere Saracen colonies were established.

For our knowledge of the Jewish element in South Italy at this period, we have a Hebrew chronicle from 850 to 1060, telling of many Jewish settlements in the Salerno area, and a Hebrew medical work of about 950. But above all ,we have the extensive Latin writings bearing the name of Constantine the African. He was an Arabic speaker who made a long stay in Salerno, was converted to Christianity and became a monk at the ancient Benedictine house of Monte Cassina, where the Nazis now are barring the path of the Fifth Army to Rome. Constantine died in 1087. He spent much of the last ten years of his life turning into Latin, with the help of a local scribe, medical works of certain Jewish physicians of Kairouan. At the same time an Archbishop of Salerno was engaged in translating medical works of Greek into Latin. Constantine himself is said to have acted as the Oriental secretary to the Norman invader of Salerno.

These literary events were contemporary with the Norman conquest of Sicily and South Italy by Roger Guiscard, which was itself contemporary with the Norman conquest of England under William the Conqueror. There was some intercourse between Salerno and England, and one of the few surviving Anglo-Saxon medical texts, Cockayne's Leechdoms, written soon after the Norman conquest, is a translation of a Saleritan document. This was the great period of the medical school of Salerno. During the twelfth century Bologna, and later Padua, became the chief medical centre. In 1224 a university at Naples was formally instituted as a rival to papal Bologna by Frederick II, the great enemy of the Papacy. This was fatal to the neighboring medical school at Salerno, and its importance immediately began to wane.

It will be seen from the foregoing that Greek, Latin, Saracen and Hebrew influences converged on the city and its medical school, and thus may have given rise to the legend that the school was founded by four practitioners, a Greek, a Latin, an Arab and a Jew. Salerno was, like Alexandria, one of the historic bridges over which ancient culture, and particularly ancient medical culture, took its way in the Middle Ages from East to West.

A recent article on Salerno, Its Medical School and Its Medical Legends, in the British Medical Journal (Sept. 25, 1943, p. 402) throws much light on the origins of the school. From it the following paragraph is quoted:

"During the 'Dark Ages', that is from A.D. 400 to about A.D. 1200, the great traditions of Hippocrates and Galen faded. All theoretical medical knowledge lapsed. Even the barest elements of anatomy were forgotten. Prognosis became a childish rule of thumb; therapeutics a ridiculous and disgusting drug list; medicine a collection of formulae punctuated by more or less sacred incantations."

The School of Salerno, as Newburger says, aroused the healing art from the decrepitude of half a millenium, infused new life into things and guarded as a Palladium the best traditions of ancient practice. Its origins are obscure. Many romantic legends have gathered round the name; but as Dr. Charles Singer says, none of these is even approximately true.

It is clear, however, that it had not an ecclesiastical foundation, even though the city itself was a bishopric, 974; an archbishopric; the Benedictines had a cloister and hospital, established in 820; and the friendliest relations are said to have existed between the clergy and the Salernitan physicians. The medical teachings and traditions of the Medical school of the time, came upon the dreary stagnation of the early Middle Ages, with something of the invigorating freshness of the sea. Its anatomy was based upon that of swine; its physiology and pathology were Galenic; its diagnosis mainly pulse and urine lore; but diseases were studied first-hand in a straightforward, spontaneous, engaging manner; therapy was rational, with an admirable system of dietetics; Salernitan seurgery was new and original; obstetrics and nursing were ably cultivated by talented women. The tendency of the School of Salerno was entirely and eminently practical.

The Salernitan productions are contained in the Breslau Codex, most of which has been reproduced in the collections of Salvatore de Renzi (1853-6) and Piero Giacosa (1901). The Regimen Sanitatis Salernitanum or Flos Medicinae (1260-1300), a poem in double rhymed hexameters, was first

printed in Latin in 1484. Some of the MSS. are addressed to "England's King," held to be William the Conqueror's eldest son, Robert of Normandy (1054-1134), who was certainly in Salerno in 1098. Two of the opening lines of the poem are known to all:

"Use three physicians still: First, Dr. Quiet,
Next Dr. Merryman, and Doctor Diet."

The Regimen consists of a string of very sensible dietetic and hygenic precepts. It was meant for the laity and corresponded to the medical almanac of our grandfathers' day.

Salerno's school, in conclave high unites
To counsel England's King, and thus indites
If thou to health and vigor would'st attain
Shun weighty cares—all anger deem profane,
From heavy suppers and much wine abstain.
Nor trivial count it, after pompous fare
To rise from table and to take the air.
Shun idle, noonday slumber, nor delay
The urgent calls of Nature to obey.

It passed through some 240 separate editions, including Irish, Bohemian, Provencal and Hebrew.

Of the "Ladies of Salerno", Trotula, whom the 13th century trouvere Ruteboeuf styled "Dame Trot" (Madame Trotte de Salerno) is credited with a gynecologic and cosmetic treatise, De passionibus mulierum, while Abella wrote De natura seminis hominis and De Atra bile. In the opinion of Malgaigne and Sudhoff, Trotula is not a person, but only the name of the book itself. According to Daremberg and De Renzi, it is the name of the authoress, whom some suppose to have been of the Ruggero family and the wife of the elder Platearius. The remark of the medical historian Baas on this point is: "God knows which of these statements is true!"

Publications of the Salernitan school were many and varied. They include the Antidotarium of Nicolaus Salernitanus, a formulary of 139 complex prescriptions, a primer on the dissection of the pig, and treatises on uroscopy. Gilles de Corbeil, Canon of Paris and physician to Philippe Auguste of France (1165-1213), wrote two poems on the pulse and the urine, also a poem on the composition of medicines and a satire on the clergy. He laments the decline of Salerno after it had been sacked in 1194 by Henry VI.

The principal outcome of the School of Salerno was the work of two surgeons, Roger (Ruggiero Frugardi) of Palermo and Roland (Rolando Capelluti) of Parma. Roger's Practice, written about 1170, re-edited by his pupil Roland about 1230-40, and commented upon by the "Four Masters" a little later, was never separately printed, but exists apart in manuscript, although Daremberg published a unique edition of the famous commentary (Glossulae quatuor magistrorum) in 1854. Roger's work became a standard text-book at Salerno, where he himself had been a student and teacher. He was the earliest special writer on surgery in Italy. He knew of cancer and (possibly) syphilis; described a case of hernia of the lungs; prescribed ashes of sponge and seaweed (iodine) for goiter or scrofula; employed the significant mercurial salves for chronic dermal and parasitic affections; introduced the seton and suture of the intestines over a hollow tube; taught the use of styptics, sutures and ligatures in hemorrhage and the healing of wounds by second intention (laudable pus).

The most remarkable contribution of the Salernitan school to internal medicine is the Tractatus de aegritudinum curatione, the first example of an encyclopedic text-book of medicine, written by many authors, and no doubt designed for posterity as the "Summa Medicinalis" of Salerno. It became the standard school book of internal medicine in the first half of the twelfth century. It treats of local diseases seriatim from head to foot.

Charles H. LaWall states that after the taking of Salerno by Robert, Duke of Normandy, in 1076, its university was the leading educational centre of Christendom. In 1095 the First Crusade began and Salerno acquired additional importance because it was the location of the base hospital for the militant Christians. Acording to him, Salerno was the first of the educational institutions of the true university type, dating from about the eighth century. Of the other important universities, that of Paris was founded in 1110, Bologna in 1113, Oxford in 1167, Cambridge in 1209, Padua in 1222, and Naples in 1224.

In the teachings of the School at Salerno were revived the "surgical sleeping drafts" mentioned by the Church fathers, Hilary and Origen. The "soporific sponge" was composed of opium, henbane, mulberry juice, lettuce, hemlock, mandragora and ivy. This was inhaled from a sponge by a patient, who was later revived by fennel juice applied to the nostrils. This formula was given in the antidotary of Nicholas of Salerno. Nicholas is also responsible for the 'Quid pro Quo', a list of drugs which might be substituted for others. His book is said to have given rise to the expression quid pro quo.

While the school of Salerno flourished, the town naturally reaped benefits. Ordinary citizens of the Civitas Hippocratica might become fellows of the college. Pupils, teachers and fellows were exempt from taxation as in the schools of Rome, an arrangement which, at all events, furnished an inducement to join the college. Jurisprudence, Philosophy and Medicine were all finally taught there, as in the Arabian academies. The fact that the institution was never properly a monastic school, but from its very origin possessed married teachers, points also to an Arabian origin.

Salerno had made a name in medical ethics and medical licensure. The first extensive law relating to the practice of medicine in Europe was established by Frederick II in 1224. This specified the type of instruction which a physician was to receive, required an examination and licence to practise, and regulated the fees that might be charged. In addition, the law attempted to control public hygiene and the sale and adulteration of food and medicines. It was this law which did so much to establish the pre-eminence of the School of Salerno in medical education during the Middle Ages. The significance of Frederick's statute may be judged by the fact that it was re-enacted by Charles IV for the German states in 1347, and for Italy in 1365.

In his short story, "The Eye of Allah", from Debits and Credits, Rudyard Kipling refers to Salerno. John of Burgos, an artist who, in the early thirteenth century, made an English abbey his headquarters, had gone to Granada in Spain and brought back with him to the abbey inspiration for the great manuscript Gospel of St. Luke which he was planning to present to the Papal Legate. Sometime after his return the Abbott, Stephen de Sautre, who was not only a Churchman but a man of science and a doctor of medicine, and who had been a prisoner of the Saracens in an unlucky Crusade, gave one of his 'wisdom' dinners. The Abbott's wife, Anne of Morton, had been ailing for some time and Roger of Salerno, who had been called to see her and found her suffering from cancer, was the principal guest. The other guests were another Roger, a young friar from Oxford named Bacon, Thomas the Infirmarian, and the artist John of Burgos. In the discussion at the end of the meal Abbott Stephen called on John to show the devils he had drawn for his Gospel of Luke,—those which left Mary Magdalene, and those which entered the Gadarene swine. On viewing them, Roger of Salerno expressed his opinion that the shapes which the artist had created were begotten of drugs and stood outside the rational mind. Thomas, the friend of John of Burgos, called his attention to the shapes in the borders of the manuscript, and here I quote:

"The border to the picture was a diaper of irregular but balanced compartments or cellules, where sat, swam or weltered, devils in blank, so to say—things as yet uninspired by Evil—indifferent, but lawlessly outside imagination. Their shapes resembled again, ladders, chains, scourges, diamonds, aborted buds, or gravid phosphorescent globes—some well-nigh star-like."

Thomas suggested that these were things actually seen by the artist through optical art. He recalled how John had shown him with the aid of a lens the shapes of snow crystals. To the Abbott's question, John admitted that was so, and showed them a microscope which he had brought from Moorish Spain, and which the Moors called "the eye of Allah".

"And now to find a drop of water," said John, picking up a small brush.

"Come to my upper cloister. The sun is on the leads still," said the Abbott, rising.

They followed him there. Half way along, a drop from a gutter had made a greenish puddle in a worn stone. Very carefully John dropped a drop of it into the smaller hole of the compass leg, and steadying the apparatus on a coping, worked the screws in the compass-joint, screwed the cylinder, and swung the swivel of the mirror till he was satisfied.

"Good!" he peered through the thing. "My Shapes are all there. Now look, Father. If they do not meet your eye at first, turn this nicked edge here, left or right-handed."

"I have not forgotten," said the Abbott, taking his place. "Yes, they are here—as they were in my time—my time past. There is no end to them, I was told . . . There is no end!"

"The light will go. Oh, let me look! Suffer me to see, also!" the friar pleaded, almost shouldering Stephen from the eye-piece. The Abbott gave way. His eyes were on time past. But the friar, instead of looking, turned the apparatus in his capable hands.

"Nay, nay," John interrupted, for the man was already fiddling at the screws. "Let the Doctor see."

Roger of Salerno looked, minute after minute. John saw his blue-veined cheek-bones turn white. He stepped back at last as though stricken.

"It is a new world, a new world, and—Oh, God unjust—I am old!"

"And now Thomas," Stephen ordered.

John manipulated the tube for the Infirmarian, whose hands shook, and he, too, looked long. "It is Life," he said presently in a breaking voice. "No Hell! Life created and rejoicing—the work of the Creator. They live, even as I have dreamed. Then it was no sin for me to dream. No sin—O God—no sin!"

He flung himself on his knees and began hysterically the "Benedicite omnia Opera".

"And now I will see how it is actuated," said the friar from Oxford, thrusting forward again.

"Bring it within. The place is all eyes and ears," said Stephen.

Within, at the Abbott's table, the discussion went on . . . .

"And if we trespass beyond bounds, even in thought, we lie open to the judgment of the Church," the Abbott continued.

"But thou knowest—knowest!" Roger of Salerno had returned to the attack.

"Here's all the world in darkness concerning the causes of things, from the fever across the lane to thy Lady's—thine own Lady's—eating malady. Think!"

"I have thought upon it, Salerno! I have thought indeed."

Thomas the Infirmarian lifted his head again; and this time he did not stammer at all. "As in the water, so in the blood must they rage and war with each other. I have dreamed these ten years—I thought it was a sin—but my dreams and Varro's are true. Think on it again! Here's the Light under our very hand!"

"May I, may John here—not even make a drawing of one—one screw?" said the broken friar, in spite of himself.

"Nowise!" Stephen took it over. "Your dagger, John. Sheathed will do."

He unscrewed the metal cylinder, laid it on the table, and with the dagger's hilt smashed some crystal into sparkling dust, which he swept into a scooped hand and cast behind the hearth.

"It would seem," said he, "the choice lies between two sins. To deny the world a Light which is under our hand, or to enlighten the world before her time. What you have seen, I saw long since among the physicians at Cairo. And I know what doctrine they drew from it. Hast **thou** dreamed, Thomas? I also—with fuller knowledge. But this birth, my son, is untimely. It will be but the mother of more death, more torture, more division, and greater darkness in this dark age. Therefore I, who know both my world and the Church, take this Choice on my conscience. Go! It is finished!"

He thrust the wooden part of the compasses deep among the beech logs till all was burned.

So runs Kipling's story of the vision vouchsafed to the surgeon of Salerno.

Medical Officer Wins Award For Gallantry

Capt. Harold William Chestnut, 34, Winnipeg, member of the Royal Canadian Army Medical Corps, has won the Military Cross, and his citation reads:

"During the attack near Salerno, Sept. 26, 1943, this officer showed conspicuous gallantry and exceptional devotion to duty on operating his regimental aid post under very difficult and trying conditions.

"Situated on top of a high ridge and under almost continuous mortar and shell fire, he carried out major operations, including leg amputations, with no thought for himself, no rest or sleep whatsoever during a period of at least 48 hours, during which he dealt with over 150 casualties at his regimental aid post.

"On account of the great difficulty of getting stretchers up the hill, all but walking wounded were forced to remain for a period of 24 hours, but in spite of this handicap, owing to Capt. Chestnut's resource, care and skill, only two died.

"Throughout the whole action this officer's conduct was an outstanding example for selfless devotion to others."

Allergy Diagnosis

C. H. A. Walton, M.Sc., M.D., F.A.C.P.

In the preceding article, scratch testing was discussed. Intradermal testing is also widely used and has some advantages. A given extract is much more sensitive when injected intradermally and therefore, more accurate. However, because of its much greater sensitivity, it is more dangerous and serious reactions may occur. For this reason, extracts used in this way must be more dilute. Extracts prepared commercially for intradermal testing are generally diluted greatly (up to a hundred fold) to ensure safety, and therefore they are really no more accurate than the scratch tests. To be most useful, extracts, for intradermal testing, should be diluted not more than ten fold, usually. This means that the examiner must make his own test solutions to suit his requirements. Further, the intradermal technique requires more apparatus and experience in interpretation. For these various reasons, it is preferable that an examiner, who makes occasional tests only, should use the scratch method. It is simple, safe and inexpensive. For the more experienced, intradermal testing offers many advantages but it requires much more equipment and experience.

Testing material may consist of the dried substance and a suitable solution, such as N/10 Sodium Hydroxide to mix with it in the scratch. However, potent liquid extracts are more readily available and are simpler and less expensive to use. The substances used in skin testing fall into two large groups, inhalants and foods. Inhalants include pollen and all other substances which might reach the patient in the inspired air and act as allergens.

Tree Pollen

In Manitoba, it has been found that the following list of pollens is important:

* Fourth of a series of short articles on Allergy. From the Department of Medicine, University of Manitoba.

1. Poplar
2. Cottonwood
3. Pussy Willow
4. American Elm
5. American Ash
6. Comon Hazel
7. Birch
8. Manitoba Maple (Box Elder)
9. Bur Oak

Grass Pollen

10. Timothy
11. Red Top
12. June Grass
13. Canada Blue Grass
14. Annual Blue Grass
15. Ryegrass
16. Brome Grass
17. Quack Grass
18. Barnyard Grass

Weeds

19. Plantain
20. Nettle
21. Pennsylvania Sedge
22. Great Bulrush
23. Redroot Pigweed
24. Amaranthus (Tumbleweed)
25. Russian Thistle
26. Lamb's Quarters
27. Goosefoot
28. Burning Bush
29. Saltweed (Atriplex)
30. Prairie Sage
31. Pasture Sage
32. Common Mugwort
33. Dragon Sage
34. Western Ragweed
35. Giant Ragweed
36. Marsh Elder (False Ragweed)
37. Cocklebur
38. Sheep Sorrel
39. Curled Dock
40. Cat-tail

The above all occur in the air and have been shown to cause symptoms in Manitoba. While it can be shown that closely related species (e.g. Ragweed group) often give cross reactions, many cases are seen which give reactions to one species only. Thus, it is necessary to test with all that are known to be important, so that sensitivities will not be missed. This list is incomplete but it includes the common offenders, as they are known at present. As our knowledge of the flora of the province increases, this list will, of course, be modified. Such a study is at present under way in the province. Reference to the second article in this series will indicate the seasons in which the various pollens occur.

In addition to pollen, it is now known that airborne fungous spores are important inhalant allergens. A report of a survey of this problem in Manitoba is in the process of publication. It indicates that the following fungi are probably of great importance in Manitoba:

Fungous Spores

1. Rust
2. Smut
3. Hormodendrum
4. Alternaria
5. Yeast
6. Monilia

In addition, the following may be of some importance:

7. Penicillium
8. Aspergillus
9. Rhizopus
10. Helminthosporium

A minimum list of miscellaneous inhalants for routine testing should include:

1. Horse Dander
2. Cattle Dander
3. Cat Dander
   Dog Dander
5. Sheep's Wool
6. Rabbit Hair
7. Chicken Feathers
8. Goose Feathers
9. Duck Feathers
10. House Dust
11. Orris Root
12. Pyrethrum
13. Kapok
14. Cotton Linters
15. Silk
16. Rayon
17. Linseed
18. Cotton Seed
19. Grain Dust
20. Tobacco

Special circumstances may suggest that other substances should be tested but the above lists cover the majority of the common offenders.

It is obviously impractical to test every suspected case of inhalant allergy with all the above substances and indeed, it is not usually necessary. A careful history should indicate what tests are necessary.

A diagnosis of inhalant allergy can often be made when a careful history is taken, a complete examination carried out and suitable skin tests done. Skin tests are not diagnostic in themselves and are only of value, when interpreted in the light of all other findings.

The diagnosis of allergy to ingestants presents special problems which will be considered in a later article.

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Guillain-Barre Syndrome

By J. C. Hossack, M.D., M.D.C.M.
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The syndrome referred to by the name of Guillain and Barré is not very common but neither is it excessively rare. It has, furthermore, many synonyms which include radiculoneuritis, infective neuronitis, acute neuronitis, myeloradiculitis, polyneuritis with facial diplegia, acute infective polyneuritis and several others. This multiplicity of names suggests a variegated clinical picture and an incomplete understanding of the disorder.

Guillain, Barré and Strohl during the winter of 1916 observed two patients suffering from what they regarded as a definite but undescribed clinical entity. The outstanding characteristic was what Guillain called "albumino-cytological dissociation". In both cases the protein content of the spinal fluid was greatly increased while the cells were normal in number. Since the publication of the original paper many cases have been reported either as examples of the "Guillain-Barré Syndrome" or under one of its synonyms. From a study of these cases it has been recognized that, in addition to the spinal fluid changes, there are several other criteria which, while not of invariable occurrence, are sufficiently constant to be of great diagnostic value. These characteristics of the syndrome are the following. 1. Albumino-cytological dissociation. 2. Sudden onset usually preceded at an interval of several days by an upper respiratory infection. 3. No signs of sepsis or toxaemia. 4. Radicular involvement. 5. Involvement especially of the proximal parts of the limbs. 6. Facial paralysis. 7. Absence of mental symptoms. 8. Good prognosis in spite of severe involvement.

Considering these criteria in turn we find that while usually the cell count is normal it is not always so. Baker found pleocytosis in about an eighth of his cases and a completely normal fluid in twice that number. Stone and Aldrich advise, on their own experience, repeated examination of the fluid as not infrequently it is normal at the first inspection. In most cases, however, if not in all, there is a period in which the cell count remains within normal limits while the protein is increased to perhaps as much as 375 mg. per-cent.

The onset is frequently but not invariably sudden. A patient of Stone and Aldrich found his legs useless when he wakened in the morning. Fitzgerald and Wood report a case where paralysis developed within a matter of hours. In Armand Delille's case the child was feverish for three or four days before paralysis was observed. In most cases there was a history of an antecedent infection, such as sore throat or coryza, from which the patient had completely recovered.

The patients are not toxic and they show none of the usual signs of sepsis. When the temperature is high or when leucocytosis is present some other factor is responsible.

The distribution of sensory and motor impairment is radicular. Even in the myelitic form where segmental levels are present there are still radicular pains. As to the part of the limbs most severely affected it is nearly always the proximal regions, though Wright, Scheffel and Jewett assert that the distal portions not infrequently bear the brunt. Facial paralysis is a very common feature. It may be mild or severe, unilateral or bilateral. It is a highly important finding for in very mild cases of the ailment its presence will direct attention to the true nature of the illness. Even in the more severe forms, especially those that resemble peripheral neuritis, the recognition of facial weakness will lead to the proper diagnosis. It serves also in the differential diagnosis from poliomyelitis. Occasionally, as mentioned by Baker, facial paralysis may be the outstanding physical finding and only careful examination will reveal other evidences of nervous involvement. Mental symptoms are almost invariably absent. They are most likely to be present in the rare cerebral form but even there they are mild; noisiness and excitement occurring less often than lethargy.

The disease does not carry with it a great threat to life and function is usually restored. But while the slightly ill recover quickly and most often completely, the more severely affected may face not weeks or even months but years of slow improvement.

The exciting cause appears to be a virus akin to the virus that causes poliomyelitis. There is a definite relationship between the two disorders for cases of the Guillain-Barré syndrome are of most frequent occurrence following the peak of an epidemic of infantile paralysis. The seasons in which most cases have been reported are summer and winter, especially the latter. Both sexes are equally vulnerable at all ages. About 25% of the cases occur under the age of twenty and 70% between the ages of 20 and 50 but it has been recognised in patients of 70 and over. Nothing is known about the method of spread and the relationship with the almost constant antecedent respiratory infection is equally obscure.

There is nothing characteristic about the pathological changes. The tissues are oedematous and the capillaries engorged. These changes occur throughout the nervous system and are most in-

tense in those parts that give origin to the clinical signs. It is this variability of localisation that is responsible for the variegated symptomatology.

The clinical picture is very variable. The principal features are sensory disturbances and paralysis. Either may be slight or even absent. Either may preponderate greatly over the other. The sensory disturbance may be mild and limited, or of such severity and such extent as to require opiates in large dosage. The paralysis may affect only a single limb or may involve all four limbs. Cranial nerve involvement may be inconspicuous or prominent.

The sensory disturbances may be of any sort. Paraesthesia, hyperaesthesia, hypesthesia, anaesthesia, pain—all have been reported as forming minor or major complaints of the sufferers. Any parts of the body may be affected but the principal areas of the limbs and in them chiefly the proximal portions. Numbness and tingling frequently presage and precede paralysis. The sensory disturbances, which follow the distribution of nerve roots, may be mild or severe and they vary in extent from case to case although in all cases symmetry is maintained. Pain may be provoked by pressure upon the muscles which at times are very tender. This muscle tenderness which is very prominent in many cases, may be associated with radicular pains or may be present by itself. It tends to be long lasting and, like the other pain, usually persists throughout the active phase of the illness. Its presence in a marked degree makes the handling of the patient difficult.

In many if not most cases the outstanding feature is paralysis. Often it is preceded by hours of numbness and tingling. It tends to affect both limbs completely and almost invariably the legs are affected first. The arms often escape and when they do become involved it is usually to a lesser extent and unequally. At first the whole limb is paralysed but it is the proximal portions that suffer most severely and for the longest time although some observers have found the distal parts preponderantly involved. The paralysis is usually flaccid in type but occasionally is spastic. The muscles of the back and abdomen may be greatly weakened so that the patient cannot raise himself in bed.

Except in the rare spastic cases the tendon jerks quickly become diminished and then absent. It has been the experience of some observers that the abdominal reflexes are retained but more commonly they also disappear. Rarely they are described as brisk. No pathological reflexes have been reported.

It is obvious that the disorder can show itself in many ways and this has lead to methods of classification. One, that of McIntyre, is based upon the course of the illness: 1. Rapid course, rapid recovery possibly with seventh nerve involvement. 2. Steady progress, death. 3. Prolonged course, incomplete recovery. 4. Prolonged course, death. Baker classifies his 33 cases in five groups: 1. Abortive and mononeuritic. 2. Polyneuritic. 3. Myelitic. 4. Bulbar. 5. Cerebral. A cerebellar form has also been described.

There must be many cases of the **Abortive type,** so many indeed that they might well have a grouping of their own. There is sudden onset with headache, general aching, and pains which at first are fleeting and later become severe. In a few days these complaints have gone and their significance will be missed unless they return or persist with additional signs of a more definite sort. It is when they do so persist and become localised in a single limb that the **Mononeuritic** type is recognized. Then the tingling limb becomes weak or paralysed and its muscles become tender. The face may show weakness in which case diagnosis is much easier. Usually the illness lasts about two weeks and ends in recovery but the weakness may persist for many weeks, and be associated with wasting.

The **Polyneuritic** form is the one most commonly reported. It may follow the abortive type or appear a week or two after the upper respiratory infection which is so invariably antecedent. There is sudden or gradual appearance of weakness in the legs. This weakness affects all of both legs and develops into complete paralysis. The proximal muscles are usually the most severely injured. Later, within hours, the arms are attacked but rarely to so great an extent. The muscles of the back and abdomen do not escape and the cranial nerves also may be implicated.

According to Baker the **Myelitic** is the most common variety. Nearly half of his cases and many of the others reported fall in this group. Here suddenness of onset is the rule. Numbness and tingling in the legs are followed rapidly by weakness and then paralysis. The limbs are nearly always flaccid, the tendon jerks are first diminished and then absent, the abdominal reflexes also disappear. Rarely tone is increased and there is clonus. Muscle tenderness is early and severe but passes off to leave both muscles and tendons insensitive to pressure. In severe cases involvement of the arms follows. Superficial sensation is prominently involved and the advancing process is marked by the rising segmental level of sensory disturbance. There is early involvement of the sphincters. The cranial nerves are often implicated, particularly the seventh. The condition continues to advance for two, three or four weeks and then comes to a sudden halt. From then on the symptoms recede and the first stage of recovery is rapid. The sensory disturbances are the

first to go but the motor signs, while they diminish are slow in leaving. There may be a considerable degree of residual paralysis which the passage of months and even of years may not completely remove.

The **Bulbar** form includes those cases with preponderate involvement of the cranial nerves. The signs of bulbar involvement — dysarthria, dysphagia, dysphonia—may appear suddenly after the illness has been established for some days. Other than the lower cranial nerves may be affected especially the seventh, the fifth and the oculomotor group. Facial paralysis when it is present is not infrequently bilateral and may be severe. Bulbar involvement is almost always associated with motor and sensory abnormalities elsewhere but these need not be prominent.

The **Cerebral** form is rare. Again, evidences of a diffuse process are to be found in signs of motor or sensory impairment but, as in the preponderatingly bulbar variety, these signs may be minimal. The cerebral type begins with headache, vertigo and nausea. There are mental confusion, restlessness and perhaps excitement. Occasionally there is a good deal of cranial nerve involvement and sometimes there is papilloedema which is a grave sign. Of all forms this is the most dangerous. The **Cerebellar** form, which also is rare, has as its outstanding features hypotonia, ataxy and disdiadochokinesis.

Whatever the type, the illness in most cases is over within a month but recovery is long delayed when the course has been severe. As mentioned before the sensory disturbances are the first to go and they go completely. The residuals remain in the motor system and occur as weakness and atrophy. Recovery from these takes years if they are anything but mild. Life itself is not greatly endangered, most of the reported deaths being confined to very severe attacks, particularly with cerebral involvement, and after the process has been active for some weks. This however does not apply universally for Sampson reported 10 cases in Rhodesia and of these 5 died. All had bulbar symptoms. Others report a death rate of 20%. This was among soldiers.

The principal disorders from which the Guillain-Barré syndrome must be differentiated are peripheral neuritis, poliomyelitis, conditions which cause the "myelitis syndrome", encephalitis and Landry's paralysis. **Peripheral neuritis** is febrile, associated with leucocytosis, is distal in distribution, does not attack the trunk, affects the upper extremities equally and simultaneously with the legs, sensory disturbance is typically peripheral, and the cranial nerves escape. **Poliomyelitis** may be considered in times of epidemics because the two disorders may then coexist but the stiff neck and back, the scattered distribution of the paralysis, the absence of sensory changes, the lack of symmetry and the spinal fluid findings are sufficient to separate the two. **Infective myelitis,** epidural abscesses and other disorders that cause the myelitic syndrome can be excluded by the signs of toxemia or sepsis and by the purely segmental distribution of the signs as well as by positive alterations in the spinal fluid. In **encephalitis,** the evidences of disease are mostly cerebral and the scattered findings of motor and sensory change are absent. Landry's Paralysis is not a separate entity and there is little doubt that in many cases it is actually the disorder with which we are concerned.

There is no specific treatment. Thiamin, B complex and ascorbic acid have been given in large doses and may be helpful. Analgesics, both mild and strong, are needed for the pain. Hot packs give comfort. Physiotherapy is useful in the later stages.

Following is the History of a Case Seen Recently

A woman of 58 felt numbness and aching in her legs on the evening of January 3rd. This increased during the next day but on the morning of the day following she awoke to find herself paralysed in all her limbs. Only the right arm remained slightly useful. Pain was severe, persistent and generalized but most severe in her legs. For several days all symptoms increased, her sphincteus were affected and she was sent to hospital where she seemed to get worse. By the end of the third week she was so tender all over that handling her in bed was difficult and even morphine did not completely relieve her. She refused puncture. During this time she showed some facial weakness. She returned home unimproved and put herself under the care of another doctor. During the following week she remained paralysed and in great pain but towards the end of the week she improved. The pain and muscle tenderness left her but she remained paralysed.

When seen with Dr. Lander in May — four and a half months after the illness began she presented the following signs: She looked comfortable and her head and neck were negative. The arms were atrophied and the hands were held in flexion. She could barely move her shoulders, had fair movements at the elbows and could use her hands in knitting. The tendon reflexes were all absent. Sensation, both deep and superficial, was normal. The muscles of her abdomen and back were weak. The abdominal reflexes were absent. Sensation there was normal. The legs were both wasted to an equal and considerable degree. Flexion of the thigh was exceedingly feeble. Abduction and adduction of the thigh could be initiated and was completed by gravity which she was not strong enough to resist. Movements at the knee were more satisfactory. She had bilateral foot-drop but was not without power in her feet. The knee and ankle jerks were both absent and there was no plantar response. Sensation was unaffected. Since the middle of April she had gained appreciably in strength according to herself.

Her refusal to allow spinal puncture earlier in the illness deprived us of an opportunity to obtain this important evidence. Otherwise she furnished the criteria of the Guillain-Barre syndrome. On direct questioning she admitted having had a "cold" about Christmas time, the onset was sudden although it took a day for the paralysis to appear. When this did come it was universal over her limbs with the arms suffering least. There was implication of the facial nerve although it was not severe. Muscle tenderness and pain were excruciating and difficult to relieve. When improvement began the sensory disturbances went quickly and completely. There has been steady improvement in the motor state but recovery is still far from complete. It is scarcely necessary to discuss the differential diagnosis for with so much positive evidence no other diagnosis could be considered seriously.

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Calcium Deposits in the Abdomen---Part 2

The Fourth of a Series of Articles on Radiology, by H. M. Edmison, M.D.

Of all the significant calcium deposits occurring in the abdomen, biliary and urinary calculi are the most common and, for that reason alone, are probably the most important. While the many and varied features of these will not permit detailed discussion, an attempt will be made to outline some of those which are most outstanding. A few of the less common conditions will also be discussed briefly.

Gall Stones

It has been estimated that only about 25% of all gall stones contain sufficient calcium to be demonstrated on an X-ray film without the assistance of contrast medium within the gall bladder. They may be found over a wide area, but there should be no difficulty in recognition especially with the assistance of modern methods of cholecystography, which have increased the accuracy of interpretation tremendously.

Gall stones are usually multiple and of various sizes, the commonest type being faceted with a dense outer margin and a clear center. Rarely they may be solid densities. Occasionally the calcium deposits are laminated and will appear as a number of concentric rings. The shadows of gall stones are smaller when the exposure is made with the anterior surface of the body in contact with the film and in a lateral view, they are found to be anterior to the spine. They are most likely to be confused with calcified costal cartilages, calcified mesenteric glands or renal calculi and it may be necessary to visualize the gall bladder to exclude one or more of these.

A diseased gall bladder will sometimes contain calcium bile and debris which is sufficiently opaque to outline a portion of the wall or even the entire organ. The appearance is usually altered with change of posture.

Calcium may also be deposited in the wall of the gall bladder as a result of inflammation and when present in large amounts, the entire outline may be clearly defined.

Urinary Calculi

Calculi in the urinary tract are usually denser and more homogeneous than gall stones. They may be round or irregular in outline and if large enough, will form a cast of the cavity in which they are contained. It is not uncommon to see a calculus which completely fills the pelvis and calyces of the kidney. They can occur singly but are more often multiple and are seen within the shadow of the kidney or in the region of the ureters or urinary bladder.

Over 90% of renal and ureteral stones are opaque to X-rays but the percentage is considerably less in the case of vesical calculi. In contrast to calcified mesenteric glands and gall stones, the position of all urinary calculi remains relatively constant. They must also be differentiated from calcification seen in tuberculosis of the kidney and renal deposits sometimes associated with hyperparathyroidism.

The shadows of renal calculi are smaller when the exposure is made with the posterior surface of the body against the film and in a lateral view, they are found to be opposite the vertebral bodies. Intravenous and retrograde pyelography are, of course, of great assistance in accurate interpretation and are sometimes imperative.

Prostatic calculi are commonly seen as small discrete areas of increased density behind or slightly above the symphysis pubis.

Pancreatic Calculi

Calculi occur more frequently in the head of the pancreas than in the body and are found almost invariably at the level of the first lumbar vertebra or immediately adjacent. They are seen as a group of small punctate deposits or larger multiple stones. If present throughout the entire organ they will extend across the midline to the left upper quadrant where they may simulate calcification of the adrenal glands.

Cysts and Tumors

Almost every type of cyst occurring in the abdomen will occasionally become calcified and present certain more or less characteristic features. Echinococcus or hydatid cysts may appear in either the liver or kidneys. They are usually large and often multiple. Calcium is deposited in an irregular manner throughout the wall of the cyst and the spherical margins may be quite sharply defined. If small and single, a cyst in

the lower margin of the liver may resemble a calcified gall bladder. Daughter cysts can sometimes be seen within or attached to the larger cyst.

Ovarian cysts are sometimes calcified, especially dermoids, and the presence of teeth in the latter is, of course, diagnostic. They are often bilateral but their position is very variable which may be confusing. Ovaries can also be calcified without cyst formation and must be distinguished from stones in the bladder.

Uterine fibroids frequently contain varying amounts of calcium. They are almost always large by the time they become calcified and while usually within the pelvis, they may reach as high as the mid-abdomen. The margins are rounded but rough and the calcium is deposited in a spotty, irregular manner.

Clinical Luncheon Reports

St. Joseph's Hospital

Gallstones and Jaundice

Dr. L. Hershfield

Dr. Louis Hershfield presented a case of a woman of 35 who had suffered from upper abdominal distress for over 12 years. During the past year she had been worse, with much indigestion and frequent attacks of pain as well as loss of appetite. There was nothing significant in her past or family history except that she had been delivered of a miscarriage, two still births and four living children who range in age from 14 to 1.

Because the indigestion persisted in spite of medical treatment, operation was decided upon. She had a degree of anaemia—red cells, 4,700,000; white cells, 7,300; haemoglobin 62%—and this was treated by ferrous sulphate and by transfusion of 250 c.c. of blood. Repeated checks of the blood showed no improvement and the transfusion was repeated three times but subsequent counts showed very little rise in the red cells. Further, more or less severe reactions followed most of the transfusions.

On January 19th, two weeks after admission, the gallbladder was removed and reported as showing chronic inflammation and containing many stones. Five days after the operation the patient had a severe nose-bleed and was given a transfusion of 250 c.c. of blood of the same group. (The grouping had been carefully checked in every instance.) After the transfusion she had a chill and vomited. The same events followed the next transfusion given two days later. It was then noticed that she was jaundiced and that her urine contained bile. She had frequent attacks of epistaxis and was expectorating a dark blood-stained spit. An examination of the blood revealed that the red cells had fallen to 2,700,000 and the haemoglobin to 44%.

The fact that transfusion seemed to make the patient worse led Dr. Hershfield to have both donor and recipient checked for the Rh Factor. The donor was found to be positive and the recipient negative. Dr. Bruce Chown was able to supply about 250 c.c. of washed Rh negative cells and these were given the patient with no reaction and with almost dramatic results. From then on recovery was rapid.

In discussion Dr. Chown and Dr. Israels explained the mechanism and the reaction which occurs when Rh positive cells are added to Rh negative serum. The sequence—miscarriage, still birth, normal birth—is more significant of lues than of Rh incompatibility in which the order is reversed. The status of the children had not been determined.

The father was Rh positive.

Intra-group transfusion reactions are not common, but this case shows that they may occur when they seem to be most unlikely and shows the advisability of checking the Rh status as well as the blood group when transfusion is planned.

While the reactions in this case were severe they were not alarming. In a paper by Butler, Danforth and Scudder instructions are given for the treatment of intra-group transfusion reactions. These are: 1. Stop the transfusion at once and, if necessary, give plasma or serum. 2. Prove hemolysis by centrifuging the blood and examining the plasma. Test both bloods for Rh factor. 3. Obtain Rh negative blood of same group. 4. Check urine for hemoglobin and red cells an hour after reaction began. 5. Alkalinise by giving sodium bicarbonate by mouth and proctolysis. 6. In oliguria restrict fluids to 2,000 - 3,000 c.c. daily.

Victoria Hospital

Diverticulitis With Obstruction

Dr. A. W. Hogg

A male patient, age 66, railway pensioner, was seen April 6th, complaining of severe, generalized abdominal pain of three days' duration. Vomiting started on the second day and had been persistent. He had been unable to get a bowel movement in spite of taking purgatives. He thought all his trouble was due to this absolute obstipation.

His past history was negative, except that he had had recurrent attacks of indigestion, at variable intervals, over the course of twenty-five

years. These attacks had all been relieved by taking "Stomach Powders".

Examination showed a thin, dehydrated man, tossing noisily around in bed, with an acutely distended abdomen, which was extremely tender to touch. His temperature was 97.4 F., his B.P. 98/70, and his pulse weakish but regular at 90.

Repeated enemata were given without result and his pulse rose to 130. Duodenal intubation was attempted without marked relief. Dr. A. M. Campbell kindly saw this case in consultation and, as the man was getting progressively worse, operation was decided five hours after admission.

Under local anaesthesia, using a McBurney incision, a caecostomy was done, and these findings noted:

1. Extremely tense abdominal wall.
2. Absence of free fluid in the peritoneal cavity.
3. All the small bowel distinctly red in color, distended, with thick walls.
4. Caecum and colon distended proximal to a hardish fixed mass in the left iliac fossa, approximately 6" x 2½".

The colon proximal to the mass contained hard facetted faecoliths, about half the size of a fuel briquette.

Two Penrose drains and sulphathiazole powder (75 grains) were left in the peritoneal cavity, and a rubber catheter was sutured in the caecostomy.

The patient was kept on 3,000 cc. fluid intravenously each day; the returns from the duodenal drainage were injected into the caecostomy tube, 8 ozs. every two hours after the third post-operative day.

After seven days the distention had subsided and the caecostomy was functioning well; the enemata produced soft bowel movements.

Twenty-four days after admission, the patient's blood being almost normal, laparotomy was done under gas anaesthesia (Dr. Brener).

The mass which was palpable preoperatively had subsided markedly, the proximal colon was empty and there was a constricting mass at the recto-sigmoid junction. There was an abscess containing about a teaspoon of thick white pus between coils of ileum adjacent to the tumour. The mesenteric lymph glands showed no abnormality. A Mikulicz resection was done, leaving a double barrel colostomy with the stomata clamped.

Dr. Lederman reported on the resected bowel as follows: "Piece of Sigmoid Colon, 5½ inches in length. There are several small diverticula and one larger one about ¼ inch in diameter, surrounded by dense fibrous tissue."

Microscopic examination shows "subacute diverticulitis of the colon. There is much surrounding inflammatory fibrosis in the fatty and fibrous tissue. There is no evidence of malignancy."

The post-operative course was good following whole blood transfusion and parenteral feeding for three days.

The spur was clamped in the sixth day and the septum was eradicated by the sixteenth day. The caecostomy closed spontaneously, but on the 67th hospital day the Mikulicz colostomy was closed under gas anaesthesia.

The patient left on the 78th day, with the bowel functioning normally and all wounds healed.

This case gives an example of the surgical treatment of intestinal obstructions by stage operations, which the poor condition of the patient demanded.

It also would indicate the difficulty in the clinical diagnosis between inflammatory masses in the intestinal wall and new growths.

A. W. H.

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Sulphathiazole Sensitivity Simulating Septicaemia

Dr. A. W. Hogg

A man of 32 was referred from the country to Dr. Hogg with the diagnosis of staphylococcal septicaemia. Two weeks previously he had sustained a chest injury and this was treated by strapping with adhesive plaster. When the plaster was removed the skin was seen to be pustular and blistered. To remedy this sulphathiazole ointment was applied. Within a day or two the patient had a widespread furunculosis and high fever. Diagnosis was made of staphylococcal septicaemia. At the time he was admitted to hospital he had a copious eruption and a temperature of 102.

Penicillin was given in addition to sulphathiazole by mouth. In spite of this therapy the patient did not improve. This failure, together with the fact that no organisms could be found either in smears or in cultures, cast doubt in the diagnosis. Dr. Birt, who saw the patient, expressed the opinion that the lesions were due to sulphathiazole sensitivity.

The drug was discontinued, after which the temperature fell and improvement began. Sulphathiazole is particularly potent in causing the development of sensitivity. (Development of sensitivity can be prevented by restricting the dosage and duration of treatment. It is advised not to continue treatment for more than 7 days or in amount to give over 30 grammes. As pointed out in a previous issue of the Review, the use of sulpha ointments for trivial injuries may lead to sensitisation, which reveals itself later

when therapeutic doses are given by mouth for conditions in which the drug is strongly indicated. These reactions then interfere with successful treatment.)

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Winnipeg General Hospital

A Bullet in the Femoral Vein

Dr. J. E. Isaac

A young lad with a wound of entry around the right seventh intercostal space. This happened in northern Manitoba, where two boys were sitting some 25 yards apart with .22 rifles, and this wound was sustained with a .22 rifle. The story told was that the bullet hit the water and ricochetted, hitting the boy in the right side. There was some difference of opinion as to whether this was the correct story. X-ray taken shortly after the injury showed no foreign body in the thoracic cavity. Twenty-four hours later the boy complained of pain in the right popliteal space. X-ray taken showed the bullet in the popliteal space. Under local anaesthesia, during an attempted removal of the bullet the missile slipped from the doctor's forceps and lodged higher up. The patient was brought into Winnipeg and under general anaesthesia the bullet was removed from the femoral vein distal to Poupart's ligament. There was a slight amount of white fibrinous clot, which was removed; no anti-clotting drug was used intravenously. At first it was thought this missile had punctured the vena cava and migrated to the femoral vein; there is a possibility that the femoral vein was wounded directly. The patient made an uninterrupted recovery.

♦

Antral Gastritis

Dr. M. R. MacCharles

Symptoms of pain and loss of weight. These symptoms superficially resemble symptoms of carcinoma of the stomach. The lesion is an inflammation at the interstitial tissue of the stomach. Dr. MacCharles mentioned three cases of this condition. The first went on to resolution without surgery. The second was a woman of 57 years. X-ray pictures of the stomach suggested new growth and the necessity of surgery. At operation the tissue close to the pylorus was rubbery, extending one-half inch beyond the pylorus; there was a sharp line of demarcation between this rubbery tissue and the healthy tissues; the abdomen was closed without resection or gastro-enterostomy. The third was a man who had rigidity of the right upper quadrant. X-ray strongly suggested carcinoma of the stomach. At operation there was a large mass on the posterior wall of the stomach, and some glands. Histologically showed simple ulcer, no new growth.

Dr. MacPherson mentioned this condition assumed prominence in 1941. Three factors have enabled surgeons to evaluate this condition: (1) Better X-ray. (2) Use of the gastroscope. (3) Better surgery. Dr. MacPherson mentioned that there was disturbance in the peristaltic waves of the stomach with pylorospasm, and he found considerable difficulty, roentgenologically to differentiate between antral gastritis and carcinoma. He said in the X-ray picture the mucous membrane seemed to flow on the submucosa. He showed X-ray plates of the stomach taken in 1943 and follow-up in 1945 which were not unlike the X-ray plates of stomach shown by Dr. MacCharles in his cases.

X-ray plates of the stomach shown by Dr. MacPherson: For two weeks this patient was put on ulcer diet. X-ray plates were taken again with little change from previous findings. This patient went to operation—antral gastritis; histologically no evidence of new growth.

Drs. Kitchen, Harold Rice, C. H. A. Walton and Major Austman took part in the discussion. Dr. Walton stressed the normal appearance of the mucous membrane during gastroscopic examination.

It would seem that the only way to determine accurately antral gastritis was to open the abdomen and have it visually checked.

How Salerno comes home to Western Canadians at this time is told in this extract from the Winnipeg Tribune of January 27, 1944:

NUPERCAINAL*

...for Sunburn

When discomfort from sunburn, other minor burns or abrasions keeps your patients from work or restful sleep, use NUPERCAINAL. This effective anaesthetic ointment provides quick relief from pain in the treatment of many everyday accidents. It is also of value in the control of pruritis of the skin and mucous membrane, it provides lasting symptomatic relief of dry eczema, chapped and roughened skin.

NUPERCAINAL does not contain cocaine or any other narcotic drug. It has a prompt and prolonged anaesthetic action.

1 ounce tubes - 1 pound jars

*Trade Mark Reg'd. "Nupercainal" identifies the product as containing "Nupercaine" (Ciba's brand of Dibucaine) in lanolin and petrolatum, an ointment of Ciba's manufacture.

CIBA *Company Ltd.* MONTREAL, CANADA

TOMORROW'S MEDICINE FROM TO-DAY'S RESEARCH

Something Old

Dr. Johnson's Stroke

On June 16th, 1783, when he was 74, Dr. Johnson had an attack of aphasia which he thus describes in a letter to Mrs. Thrale. The Dr. Heberden mentioned was the one who first described angina pectoris and whose name is attached to the arthritic "nodes".

" Monday, the 16th, I sat for my picture, and walked a considerable way with little inconvenience. In the afternoon and evening I felt myself light and easy, and began to plan schemes of life. Thus I went to bed, and in a short time waked and sat up, as has long been my custom, when I felt a little confusion and indistinctness in my head, which lasted, I suppose, about half a minute. I was alarmed, and prayed God, that however he might afflict my body, he would spare my understanding. This prayer, that I might try the integrity of my faculties, I made in Latin verse. The lines were not very good, but I knew them not to be very good: I made them easily, and concluded myself to be unimpaired in my faculties.

"Soon after I perceived that I had suffered a paralytick stroke and that my speech was taken from me. I had no pain, and so little dejection in this dreadful state, that I wondered at my own apathy, and considered that perhaps death itself, when it should come, would excite less horrour than seems now to attend it.

"In order to rouse the vocal organs, I took two drams. Wine has been celebrated for the production of eloquence. I put myself into violent motion, and I think repeated it; but all was in vain. I then went to bed, and strange as it may seem, I think slept. When I saw light, it was time to contrive what I should do. Though God stopped my speech, he left me my hand; I enjoyed a mercy which was not granted to my dear friend Lawrence, who now perhaps overlooks me as I am writing, and rejoices that I have what he wanted. My first note was necessarily to my servant, who came in talking, and could not immediately comprehend why he should read what I put into his hands.

"I then wrote a card to Mr. Allen, that I might have a discreet friend at hand, to act as occasion should require. In penning this note, I had some difficulty; my hand, I knew not how or why, made wrong letters. I then wrote to Dr. Taylor to come to me, and bring Dr. Heberden; and I sent to Dr. Brocklesby, who is my neighbour. My physicians are very friendly, and give me great hopes; but you may imagine my situation. I have so far recovered my vocal powers, as to repeat the Lord's Prayer with no very imperfect articulation. My memory, I hope, yet remains as it was! but such an attack produces solicitude for the safety of every faculty."—Boswell's Life of Johnson.

Something New

Patients with **myasthenia gravis** often first of all consult ophthalmologists because of the frequency of double vision and ptosis as early complaints. Such patients have difficulty in closing their eyes tightly and in convergence. The symptoms are most marked in the evening. They are greatly aggravated by quinine and completely removed by prostigmine.

♦

Renal lithiasis is an occasional complication of injury especially in vigorous and active men who are more or less completely immobilised as a result of their injuries. This complication can be prevented by frequent change of position and by drinking large quantities of fluid. Three or four uarts of fluid are given during the 24 hours, at night as well as by day, and such movements as are possible should be encouraged.

♦

According to Evan Shute of London, Ontario, there is reason to believe that **Vitamin E counteracts the effects of degenerative changes in the renal tubules.** Blood pressure, albuminuria and peripheral oedema were reduced in 10 out of 13 patients following the use of synthetic alpha tocopherol in 25 mg. doses over a period of two weeks.

♦

Patients who have valvular lesions due to rheumatic fever are very liable to develop **subacute bacterial endocarditis** when decayed teeth are extracted. This disaster can be prevented by giving sulphathiazole in quantity sufficient to raise the blood level over 4 mg. per cent. Patients with valvular disease should be advised to inform their doctor when extraction is contemplated.

♦

Reduction in dietary fat is desirable in many cases of **coronary sclerosis.** To determine which cases will benefit a fat tolerance test should be done. The evening before the test the patient has a supper of bouillon and toast. Next morning he is given the following breakfast—20% cream, 400 cc; butter, 2 pats; one egg, coffee and a thin slice of bread. This must be consumed within 15 minutes. Blood is removed before breakfast, 2 hours after and again 6 hours after, and the specimens are examined for cholesterol. An increase of 20 points in the 6 hour specimen is an indication for the reduction of fat in the diet. In addition to this reduction Uhlmann of Kansas City advises also the use of nicotinic acid in 25 mg. doses to relieve the referred pain and spraying the shoulders with water at 100° till the skin is red.

Editorial

J. C. Hossack, M.D., C.M. (Man.), Editor
R. B. Mitchell, B.A., M.D., C.M. (Man.), F.R.C.P. (C), Associate Editor

A Medical Memorial

In a communication published in the June issue Dr. Ross Mitchell suggested that the proposed Medical Centre be regarded as a memorial to the members of our profession who died overseas. To that suggestion I would add another—that, in the new University Hospital, each of six wards be given the name of one of the dead. So may their names live. But we would have more than their names remembered. There is no greater or more bitter mockery than the name which endures in bronze or in marble when no one can say what manner of man possessed it. We can never profit from what these young men might have done, but we can profit from what they have done and keep their memories fresh in the doing of it; for they fought with death on the very field of death and cheated him of many a victim before their own time came. There was no need for them to take such desperate chances, yet they took them so that their skill might give to strangers a life longer than their own. It was their sense of duty that called them to action; it was their devotion to duty that cost them their lives.

Would it not be fitting to place under the name that designates each ward the words "devoted to duty" as if it were a motto? How would the future workers in these wards react to that constant reminder? In peace as well as in war that is the watchward. Devotion to duty is the essence of medicine. The name above the motto might then live as more than a name and the man himself, though known to coming generations only by his portrait, might by this attribute stir others to serve as he served, albeit in other fields.

And as for the living, is not every hospital a memorial to those who have worked in it?

♦

On the Prescribing of Phenobarbital

The desire to prescribe phenobarbital in a liquid vehicle not infrequently results in preparations that are either valueless or dangerous. Sodium phenobarbital is not stable in aqueous solution. More or less quickly it is hydrolysed to form a number of substances all of which are therapeutically inactive. As a result the patient gets the desired drug in only the first few doses. When the sodium salt is prescribed in an acid medium phenobarbital is thrown out of solution. The B Complex Elixirs which are frequently prescribed as vehicles are acid in reaction. The clear elixir becomes cloudy from the presence of the liberated phenobarbital. The solubility of phenobarbital in alcohol is 1 in 10 but while these elixirs contain from 15% to 30% of alcohol the drug is not redissolved. In this case the patient is given not an inactive mixture but one in which it is possible for him to get in the last few doses in the bottle, an amount of the drug calculated to be taken over many doses.

Those who wish to give their patients phenobarbital in liquid form should prescribe the elixir of phenobarbital, which is stable, effective and safe. It contains a quarter grain to each drachm. The drug can be given in B elixirs, however, if phenobarbital as such is prescribed. The druggist can then dissolve the amount in a little alcohol and add it to the prescribed vehicle. This will give a clear and stable preparation.

♦

Obituaries

Dr. Andrew Pritchard MacKinnon

Dr. Andrew Pritchard MacKinnon of Winnipeg died on June 14 after a long illness. Born at North Wakefield, Quebec, in the Gatineau Valley, near Ottawa, he came to Manitoba with his parents in 1883. He was educated at Griswold, Portage la Prairie and Winnipeg, and at the age of 21 he was principal of a school in Portage la Prairie.

Graduating from Manitoba Medical College in 1907, he began practice in Portage la Prairie. In 1916 he went overseas with the 11th Canadian Field Ambulance and on his return in 1918 he served in the orthopedic wards at Fort Osborne Military Hospital. He spent six months in Manitoba Sanatorium, where he acquired a knowledge of tuberculosis which later proved of great service in his chosen field of orthopedics.

In 1920 he became a partner of the late Dr. H. P. H Galloway, and on the death of Dr. Galloway he headed the MacKinnon Clinic.

Many honors and responsibilities came to him in his quarter century practice as an orthopedic surgeon. He obtained the Ch.M. degree in 1922, became Fellow of the Royal College of Surgeons of Canada, Fellow of the American College of Surgeons in 1923, and a Fellow of the American Academy of Orthopedic Surgeons. He was president of the Winnipeg Medical Society, chief of the Orthopedic staff of St. Boniface Hospital, consultant at Manitoba and St. Boniface Sanatoria in bone and joint surgery, and lecturer in orthopedic surgery in the University of Manitoba medical faculty. He was a member of the Theta Kappa Psi medical fraternity. He contributed a number of scientific papers in orthopedic surgery to the Journal of Bone and Joint Surgery and to the Canadian Medical Association Journal.

He is survived by two sons, one of whom is serving with the R.C.A.F.; three brothers, of whom one is Major Alexander G. MacKinnon, R.C.A.M.C. of Norman Wells, N.W.T.; also three nephews and two nieces serving with the armed forces. Major W. B. MacKinnon, R.C.A.M.C., a nephew, is a member of the MacKinnon Clinic. Dr. MacKinnon was buried in Hillside Cemetery, Portage la Prairie.

A man of the highest principles, Andy MacKinnon could always be relied upon to give the best that was in him in service to his patients and to his profession. His life was marked with uprightness and integrity.

♦

Dr. Johann Marino Sigvaldson

Dr. Johann Marino Sigvaldson, who for the past four years has been on the medical staff of Manitoba Sanitorium at Ninette in charge of the travelling clinics, died suddenly in the Winnipeg General Hospital on June 3. Born in Winnipeg 42 years ago, he graduated B.Sc. in 1923 from the University of Manitoba and M.D. in 1928. From that year until 1941 he practised at Shoal Lake, Man., in partnership with Dr. S. Bardal. He is survived by his widow and two brothers. His funeral took place on June 6 at Shoal Lake.

♦

The North West Medical Society attended the funeral of Dr. Sigvaldson in a body, to pay respect to a great man. He was a friend as well as a physician to all, rich and poor alike. A full church at Shoal Lake with banks of flowers and floral tributes showed the respect in which he was held. His beaming smile will be missed by all.

E. D. Hudson, Sec.-Treas.

♦

Annual Meeting
Brandon and District Medical Society

At the annual meeting of the Brandon and District Medical Society, held at Brandon on June 20th, Dr. J. R. Martin, of Neepawa, was elected President. Honorary President is Dr. W. J. Elliott, Brandon; Vice-President, Dr. K. J. Clark, Brandon; Dr. E. J. Skafel, Brandon, Secretary-Treasurer. The Executive comprises Dr. Stuart Schultz, Brandon; Dr. F. K. Purdie, Griswold; and Dr. W. S. Peters, Brandon.

An instructive address was delivered by Lieut.-Colonel C. W. Clark, senior surgeon at Fort Osborne Military Hospital, who just returned from five years overseas services with the R.C.A.M.C. His address discussed the excellent medical care given the Canadian armed forces at all war theatres, and how blood transfusions had saved thousands of lives, and the value of sulphanilamide drugs and penicillin in combating disease.

Book Reviews

The Patient as a Person

The Patient as a Person: A study of the social aspects of illness. By G. Canby Robinson, M.D., LL.D., Sc.D., lecturer in medicine in Johns Hopkins University; 423 pages; published by The Commonwealth Press, New York. Price in U.S.A. $3.00.

A generation ago doctors were chiefly "family doctors" who lived in intimate contact with their patients. They each professed—and possessed—most of the useful medical knowledge of their time and many families had, through many years and many illnesses, experience with a single doctor.

Now that is changed. Medical knowledge has so increased that no one can profess or practice more than a fraction of it and the present-day patient, if he would enjoy the benefits of medical science to the full, must submit himself to a multitude of examinations by many specialists, each of whom is authoritative in but a single field. To all of these skilled and competent investigators the patient is only a name, a number or a case; scarcely ever is he an individual. The father, who from his one doctor received little investigation and much understanding, now has a son who from many doctors receives much investigation and little understanding. Considering the magnitude of the subject and the need for subdivision, it could scarcely be otherwise.

But the fact remains that the patient is still a person. Specialists with their attention centered upon an organ or an instrument cannot switch their focus to the patient as a whole. Yet the patient is a whole, and only by so considering him can diagnosis be adequate or treatment successful.

The study of the patient as a whole is possible only when we can add to the data furnished by technicians and specialists the important information of how the patient lives and thinks. No one can do this better than the family doctor. Unfortunately, the close patient-doctor relationship has weakened as doctors become more organically-minded, rely increasingly on the laboratory and X-ray, or develop the mechanical side of their practices. As a result the personality of the patient is being, or has been, lost in the highly specialised and complicated organisation of medical service as it exists today.

Only the most slip-shod modern doctor will omit a W.R., urinalysis, blood count and perhaps chest film of a new patient. Actually the number of cases where these examinations reveal important evidence is small. But how many doctors inquire into the environment, working conditions, home life, aspirations and disappointments of that new patient? Very few, I believe. Yet 80% of patients seeking medical assistance have significant, often serious, etiological factors in adverse social conditions.

These adverse social conditions have been classified into 1, disturbances of subsistence and 2, dissatisfactions. The former are subdivided into 1, inadequate physical protection (which has to do with shelter, food and care); 2, lack of economic protection (which has to do with earning ability and opportunity) and 3, faulty habits. The dissatisfactions are those that have to do with the family group, such as lack of a family group (singleness, separation, widowhood), friction within the group, friction with associates, dissatisfaction with social status and opportunities, work, opportunity for play, and so on.

Now these adverse conditions modify the health of every person enduring them. They alone may cause ill-health. They always aggravate disease. Of 174 cases chosen at random from among patients attending Johns Hopkins Hospital 80% had such conditions featuring as far from minor elements in etiology. In 71% of these cases improvement followed the correction, complete or partial, of these factors. The fact that social disharmonies exist in such large percentage and that in so many cases improvement follows their removal, raises them to be matters of prime importance in diagnosis and treatment. Adequate treatment must wait upon adequate diagnosis and, in chronic cases especially, diagnosis cannot be adequate without the consideration of these important factors, despite the ease with which a patient has access to laboratories and machines.

In a book entitled "The Patient as a Person" this is made very clear. The author, Dr. G. Canby Robinson of Johns Hopkins Hospital, illustrates the role played by adverse social conditions by narrating the histories of 174 patients. These were not specially selected, but they illustrate a great variety of cases of disease of the heart, lungs, alimentary tract, nervous system, and so on. The discussion of these cases shows how essential it is to treat the patient as a whole and points out that physical diagnosis and technical procedures will not alone point the way to relief.

Many doctors, while they realise the existence of harmful factors in the patient's life, fail to realise how significant these are, or are not sure how to integrate them into the general picture. Dr. Robinson's book helps to clarify this aspect of etiology. It is, moreover, a sine qua non for those who attend patients in Out Patient Clinics and in Staff Wards in Hospitals. Indeed, it is a book which every doctor should read for it will lead the investigator to study the prime object of investigation, which is the patient himself. It is in fact a plea and a reason for a return to the

Hippocratic practice, departure from which has always meant a back-sliding from real advance in treatment. J. C. H.

♦

Medical Gynecology

James C. Janney, M.D., F.A.C.S.

Assistant Professor of Gynaecology, Boston University School of Medicine. W. B. Saunders Co.

This little text of some four hundred pages is an attempt to describe the medical aspects of gynecological practice, the so-called "office gynecology". It is written from the point of view of the patient's presenting complaints rather than in the orthodox manner of describing disease entities. The text is divided into seven sections, the first three of which are devoted to the History and Examination, the interpretation of the Patient's Complaints and Objective findings. The fourth section takes up special laboratory tests; the fifth deals with treatment; the sixth with Socio-Medical problems in Gynecology, and the last with Irradiation vs. Operation. A short bibliography is appended.

Our chief criticism of this volume is that, from the standpoint of the student, too much is taken for granted; while, from the standpoint of the specialist, it furnishes a good outline but is too elementary. This, however, may have been the author's intention and those who have more knowledge than the student and require less than the specialist will find it useful.

For later editions we suggest an increase in the amount of pathological and clinical description. In some sections these are quite adequate, but in others they are incomplete. The section on trichomonas vaginalis vaginitis would be much more useful if the clinical manifestations and differential diagnosis were treated as freely as are etiology and treatment. Throughout the book there are statements with which the reviewer does not agree, but such a criticism probably applies to most books. Endocrine therapy is discussed generally; much more detail might usefully be given. The illustrations are good.

The best part of the text is that dealing with sexual maladjustment, pre-marital instruction, emotional and socio-economic factors. In this field the author displays rare good sense, judgment and understanding, and points the way to a new trend in gynecological practice.—B. D. Best, M.D.

♦

"My Second Life"

Most people are satisfied to write a single story of their lives, but Dr. Thomas Hall Shastid, having already written one, has now published another, to which he gives the appropriate title, "My Second Life." I do not know how large was the first autobiography, but the present volume is a sizable one of over eleven hundred and fifty pages. Obviously the existence of two such opera suggests that the life of Dr. Shastid has not been free from incident.

"My Second Life" reveals less of Dr. Shastid than of the times in which he has lived. He was born in 1866, the son of a country doctor who was not only his guide, philosopher and friend, but also his preceptor and ideal. His book has much to say about the "Human Trinity—Father, Mother, Wife," to whom it is dedicated. Under his father's tutelage and almost before he had entered his 'teens he began the study of medicine, and during his own lifetime he has seen it rise from a strange combination of ignorance, superstition, chicanery and altruism to the high level of today. This "Life"' occasionally glances at its subject, but for the most part it reviews the scenes, events, chances and changes that he has witnessed during his long journey. It is less a connected narrative than a collection of incidents, stories, essays and commentaries relating to his family, to doctors and people whom he has met, to patients, politics, science, religion, customs, war, peace, etc., etc. There are many "human interest" stories which show that in this most changing world, the emotions and their effects remain unchanged.

His college course was interrupted in his senior year when he came to blows with the leader of the larger of the two factions into which his class (of five students) was divided. The president was persuaded or bribed to take sides, and our author did not graduate. Further, this president did all he could to keep him from being accepted anywhere else. Years later Dr. Shastid took time out from practice to secure (with honors) an Arts degree from Harvard. He entered the College of Physicians and Surgeons of New York—now Columbia University — in 1887, when the medical course in most schools was two years of three or four months each, supplemented, of course, by practical training for an indefinite period under a preceptor. The course in New York had recently been lengthened by extending each year to seven months, and then by adding another year. The student took all his subjects during the first year, repeated them during the second year, and again took them all during the third year. Dr. Shastid took two years in New York and a third at the University of Vermont. Then, determining upon ophthalmology as a specialty, he went abroad and finally to Vienna, where he studied under Bergmeister. Doctor Bergmeister must have been an interesting character. Here are some of his comments made upon and to, his students: "Herr Doctor! Not in all my life have I ever seen any cataract operation done like that! Not that it

(Continued on page 317)

Manitoba Medical Service

Previous notes on this page have had to do with the Doctor's viewpoint, and problems as they affect the Medical profession. I thought it would be interesting to hear the layman's point of view, especially from one who has had an opportunity of seeing how a medical plan works; also some suggestions on administration from our office manager, Mr. A. G. Richardson.

E. S. Moorhead, M.B.,
Medical Director.

♦

The recent regional conference of the Blue Cross Hospitals took place in Winnipeg at the end of May. Medical Service plans were included on the programme through the courtesy of the Blue Cross executive.

Representatives came from many states, including North and South Dakota, Wisconsin, Minnesota and Iowa. Dr. C. Rufus Rorem, Director Hospital Service Plan Comm., had many suggestions and took a leading part in discussing medical plans. Mr. Allen Thompson, New York, Actuary and Vice-President of the United Medical Services Incorporated (a non-profit surgical indemnity corporation), New York, also was present, and devoted a great deal of time to discussions on our plan, and has since sent us useful literature.

It is interesting to note that no surgical fee in the New York plan is higher than $150.00. After studying our plan he expressed the opinion that we could not pay fees on our present basis without a considerable increase in dues. The enrolment department, which is in constant contact with the public, tells us that at present it would be impossible to sell contracts at a higher figure. As an alternative Mr. Thompson suggested that a percentage overall payment should be used. Our objection to this was that we could not, in all fairness, reduce the $3.00 visiting fee or the $2.00 office fee of the general practitioner, since the latter would feel that he was getting little more than he received for attending relief patients during the depression.

Representatives from the United States were keenly interested in our plan, and it is regrettable that so few Winnipeg doctors attended the meeting.

E. S. Moorhead, M.B.,
Medical Director.

♦

Firefighters' Medical Care Scheme

From the experience of my fellow-Firemen we long thought that a co-operative arrangement should be established whereby by pay-roll deductions the medical care required by Firemen and their dependents could be paid; realizing as we did that the necessary medical care for ourselves and our dependents imposed on us a contingent liability which on occasions was hard to meet in the case of Firemen in our wage bracket. There were unfortunate cases where the standard of living of some of us was reduced for a considerable period by having to meet the proper and legitimate charges of doctors.

We gave great study to the question and ultimately formulated a scheme which we presented to the Manitoba Medical Association whereby all medical care could be given to all members of the proposed scheme on a co-operative prepaid arrangement. I am able to say that the Firemen got a hearty response by a majority of the medical profession, and an agreement was formulated five years ago and has been in force until now. We are very proud of the fact that that agreement bears number one on its face.

I submit that the experience which the doctors who were parties to the scheme obtained from this experiment apparently induced them to make it more embracing and to take in other and larger groups.

I was at the inauguration of the scheme and have been Chairman of the Administrative Committee ever since, and I am pleased to be able to say that every proper care was given by the doctors. It is obvious that some of my fellow-Firemen have required more medical care than others, but I know that in our group the member who was fortunate enough not to require medical care gladly made his contribution for his less fortunate fellow-member.

Before the scheme was inaugurated I know that worry over the payment of a bill properly and necessarily incurred often retarded the recovery of the patient. Under this co-operative scheme this worry is removed.

As I have said, we have always been proud and jealous of our own scheme and would have liked it to continue, but the reasons given by the doctors for refusing to longer carry us under our separate scheme were evident and had to prevail. From the Firemen's experience of their scheme they, with the fullest confidence, recommend the Manitoba Medical Association Scheme to everyone eligible for inclusion in it.

By way of mild criticism I may say that I have been informed that in isolated occasions a specialist has mentioned to the patient that the scale of fees was not high enough. I suggest that such remark conveys to the patient a suggestion that the specialist will not give the time or attention he would be prepared to give if he received a higher fee. The Firemen are not capable of

saying what effect this leaves in the mind of a patient, but believe that it retards his progress to recovery. What I suggest, and I speak from five years' experience, is that whatever the fees for different members of the profession are set at and agreed upon, whoever is willing to join the scheme should feel that he is paying for the necessary medical care given by the doctor whom he consults.

At present the retirement age of our group is 65, but we would like to see the scheme extended after the age of retirement so long as the proper fees are paid.

The Firemen also respectfully suggest that a widow and her dependents, if any, should be allowed to remain in the scheme on payment of the appropriate contribution. While a doctor's large bill has often proved a hardship to a man who has employment, it becomes very much harder when the wage earner is dead and the whole burden of medical care for herself and her dependents devolves upon the widow.

I am able to say that the Firemen have almost to a man agreed to join the new scheme, and I am asked to express the hope that it will be beneficial to all those to join.

J. H. Tate,

Chairman of the Administrative Committee of the Firefighters' Medical Care Scheme.

♦

Yes, I admit administration is our problem, but please read on, as there are numerous ways in which we can assist each other.

Month by month a noticeable increase is noted in the number of claims received, and on the whole these accounts are quite satisfactory as to the information given; but our staff still has to spend from 2½ to 3 hours daily going through records or interrupting your busy day via the telephone to request more details to enable us to pass these accounts for payment. Claims are still being received with incomplete diagnosis, some with no group or contract numbers, others leaving out names, dates, etc., through improper insertion of the carbon paper, etc., etc. Our records are filed by subscribers' contract number and medical claims by the doctors' code number; you must admit it would be an impossibility to decipher some signatures. We have received, e.g., 138 when it should be 183, 228 should be 282, 746 should be 647, and so on. Just a litle extra time and care would correct such errors. One or two doctors have become quite annoyed with our staff on the matter of the 5% late filing penalty. The order was passed to us by the Board of Trustees, that claims for the current month **received up to and including the tenth of the following month** be passed without penalty. It is now noted that there has been a decided reduction in penalized accounts, so it appears as though all claims can be forwarded within the time limit with just that little extra effort. I really sympathize with you when patients do not inform you they belong to our organization. Please be assured our Enrolment Branch do all in their power to point out the necessity for this to all subscribers. We are now having new Manitoba Medical Service cards made for hanging on your office walls or placing on your desks, and we would be only too pleased to send you one or two should you so desire.

Knowing what a busy day (and night) a doctor can have, should you ever find a few spare minutes, I shall be pleased to meet and discuss any problems we have in common.

In closing, to save you time in telephone calls and correspondence, and us in labor and cost of administration, let us co-operate by doing it right the first time, remembering that lower administrative costs will result in higher revenue to meet medical costs.

A. G. Richardson, Manager.

"Courage and Devotion Beyond the Call of Duty"

Through the co-operation of Mead Johnson & Company, $34,000 in War Bonds are being offered to physician-artists (both in civilian and in military service) for art works best illustrating the above title.

This contest is open to members of the American Physicians Art Association. For full details, write Dr. F. H. Redewill, Secretary, Flood Building, San Francisco, Cal., or Mead Johnson & Co., Evansville 21, Ind

Free Library Postal Rate for the Medical Profession Within Manitoba

The Medical Library has a reduced postal rate for use on all loans of BOOKS and PERIODICALS mailed to the medical profession residing within the Province of Manitoba. When the borrower receives the loans, all that has to be done, is to SAVE THE WRAPPER, with the LABELS supplied by the library, and follow the instructions thereon. NO POSTAGE need then be PAID.

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The Firemen also respectfully suggest that a widow and her dependents, if any, should be allowed to remain in the scheme on payment of the appropriate contribution. While a doctor's large bill has often proved a hardship to a man who has employment, it becomes very much harder when the wage earner is dead and the whole burden of medical care for herself and her dependents devolves upon the widow.

I am able to say that the Firemen have almost to a man agreed to join the new scheme, and I am asked to express the hope that it will be beneficial to all those to join.

J. H. Tate,

Chairman of the Administrative Committee of the Firefighters' Medical Care Scheme.

♦

Yes, I admit administration is our problem, but please read on, as there are numerous ways in which we can assist each other.

Month by month a noticeable increase is noted in the number of claims received, and on the whole these accounts are quite satisfactory as to the information given; but our staff still has to spend from 2½ to 3 hours daily going through records or interrupting your busy day via the telephone to request more details to enable us to pass these accounts for payment. Claims are still being received with incomplete diagnosis, some with no group or contract numbers, others leaving out names, dates, etc., through improper insertion of the carbon paper, etc., etc. Our records are filed by subscribers' contract number and medical claims by the doctors' code number; you must admit it would be an impossibility to decipher some signatures. We have received, e.g., 138 when it should be 183, 228 should be 282, 746 should be 647, and so on. Just a litle extra time and care would correct such errors. One or two doctors have become quite annoyed with our staff on the matter of the 5% late filing penalty. The order was passed to us by the Board of Trustees, that claims for the current month **received up to and including the tenth of the following month** be passed without penalty. It is now noted that there has been a decided reduction in penalized accounts, so it appears as though all claims can be forwarded within the time limit with just that little extra effort. I really sympathize with you when patients do not inform you they belong to our organization. Please be assured our Enrolment Branch do all in their power to point out the necessity for this to all subscribers. We are now having new Manitoba Medical Service cards made for hanging on your office walls or placing on your desks, and we would be only too pleased to send you one or two should you so desire.

Knowing what a busy day (and night) a doctor can have, should you ever find a few spare minutes, I shall be pleased to meet and discuss any problems we have in common.

In closing, to save you time in telephone calls and correspondence, and us in labor and cost of administration, let us co-operate by doing it right the first time, remembering that lower administrative costs will result in higher revenue to meet medical costs.

A. G. Richardson, Manager.

"Courage and Devotion Beyond the Call of Duty"

Through the co-operation of Mead Johnson & Company, $34,000 in War Bonds are being offered to physician-artists (both in civilian and in military service) for art works best illustrating the above title.

This contest is open to members of the American Physicians Art Association. For full details, write Dr. F. H. Redewill, Secretary, Flood Building, San Francisco, Cal., or Mead Johnson & Co., Evansville 21, Ind

Free Library Postal Rate for the Medical Profession Within Manitoba

The Medical Library has a reduced postal rate for use on all loans of BOOKS and PERIODICALS mailed to the medical profession residing within the Province of Manitoba. When the borrower receives the loans, all that has to be done, is to SAVE THE WRAPPER, with the LABELS supplied by the library, and follow the instructions thereon. NO POSTAGE need then be PAID.

Personal Notes and Social News

Dr. Harry Medovy, after three years of active service in the R.C.A.M.C., has now returned to practice in his specialty of Diseases of Children, and will be located at 401 Boyd Building.

♦

Dr. O. C. Trainor has been elected chairman of a ten member advisory council set up under the Practical Nurses' Act passed last session by the Manitoba Legislature.

♦

Captain and Mrs. Allan Douglas Bracken take pleasure in announcing the birth of a son (Allan Douglas, Jr.) at the Winnipeg General Hospital on June 13th, 1945.

♦

Dr. and Mrs. J. J. Elliott of Lewiston, Montana, are happy to announce the birth of their second son (Peter Carlyle) on June 17th, 1945.

♦

Dr. and Mrs. C. M. Vanstone, formerly of Victoria, B.C., have arrived in Winnipeg, where they will reside in the future.

♦

Major J. A. B. Hillsman, R.C.A.M.C. (overseas), has been promoted to the rank of Lieut.-Colonel.

♦

Dr. Harry Matas, formerly of Fort McMurray, Alta., is now located at 135 Machray Avenue, Winnipeg.

♦

Dr. and Mrs. F. Walkin were honored by the people of the town of Ashern and surrounding community, who, anticipating their departure after sixteen and a half years' residence in the interlake district, expressed their regret with speeches and presents, at losing such good citizens. On behalf of the many friends attending the gathering, Premier Garson presented the couple with a silver service, suitably engraved.

♦

Dr. and Mrs. Richard O. Burrell are happy to announce the birth of a son (Matthew) at St. Boniface Hospital on June 22nd, 1945.

♦

Dr. Merrel Carleton, formerly with the R.C.A.M.C. overseas, is now in civilian practice, with offices at 603 Boyd Building.

Captain Joseph C. Portnuff, R.C.A.M.C., has been awarded the Military Cross for gallantry in action near the Savio river.

♦

Dr. F. W. Jackson has been appointed to the Board of Governors of the Canadian Welfare Council.

♦

Dr. and Mrs. L. R. Mackey are receiving congratulations on the birth of a daughter on June 5th, 1945, at the Winnipeg General Hospital.

♦

The Executive and members of the Manitoba Medical Association wish to express their deepest sympathy to Dr. R. W. MacCharles on the recent loss of his wife, who died at the family residence on Wednesday, June 20th, at the age of 81 years.

♦

Captain W. F. H. O'Neill, R.C.A.M.C. (overseas), of Pilot Mound, Man., has been promoted to the rank of Major.

♦

Dr. and Mrs. J. L. Wiseman take pleasure in announcing the birth on June 18th, 1945, of a son (David Gordon Hirsch) at Grace Hospital.

♦

Dr. and Mrs. H. P. McPhail's son (Manitou, Man.), Lieut. Donald M. McPhail, R.C.A.M.C., is engaged to be married about the middle of July, to Ethel Margaret, daughter of Mr. and Mrs. G. H. Herriot of Winnipeg.

♦

Microfilm Service

Microfilms of journal articles may be obtained from the Army Medical Library, Washington, D.C., U.S.A., for only the cost of the postage, if requested by the individual, and free if through the library. The Army Medical Library considers the microfilm a substitute for Inter-Library loans, and prefers to send them instead of the journals. Their weekly publication, "Current List of Medical Literature," is received in the library, and contains a classified list of articles which have been filmed during the week. It is possible, however, to procure a microfilm of any article in the Quarterly Cumulative Index Medicus, though there might be some delay in obtaining material which has not already been filmed.

For further information about this service, enquire at the medical library, telephone number 29 545.

Department of Health and Public Welfare

Comparisons Communicable Diseases — Manitoba (Whites and Indians)

DISEASES	1945 Apr. 22 to May 19	1945 Mar. 25 to Apr. 21	1944 Apr. 23 to May 20	1944 Mar. 26 to Apr. 22	TOTALS Jan. 1 to May 19,'45	TOTALS Jan. 1 to May 20,'44
Anterior Poliomyelitis	3	1	1	----	6	2
Chickenpox	197	166	134	187	1,048	1,211
Diphtheria	10	24	8	11	141	54
Diphtheria Carriers	1	1	1	1	21	15
Dysentery—Amoebic	----	----	----	----	----	----
Dysentery—Bacillary	----	----	1	----	1	1
Erysipelas	1	8	11	8	27	42
Encephalitis	1	----	1	----	3	3
Influenza	7	13	16	23	77	181
Measles	76	41	1,420	1,265	264	3,870
Measles—German	6	3	35	41	17	204
Meningococcal Meningitis	----	1	2	5	8	13
Mumps	152	186	157	240	806	1,294
Ophthalmia Neonatorum	----	----	----	----	----	----
Pneumonia—Lobar	4	10	18	23	44	112
Puerperal Fever	----	----	----	1	----	3
Scarlet Fever	45	49	252	314	345	1,459
Septic Sore Throat	2	1	2	5	9	17
Smallpox	----	----	----	----	----	----
Tetanus	----	----	1	----	----	1
Trachoma	----	----	----	----	----	----
Tuberculosis	71	48	57	39	233	234
Typhoid Fever	----	4	12	23	25	39
Typhoid Paratyphoid	----	----	----	----	2	----
Typhoid Carriers	----	1	----	----	2	----
Undulant Fever	1	----	1	----	3	2
Whooping Cough	18	40	24	22	153	153
Gonorrhoea	114	133	144	144	662	681
Syphilis	30	56	44	55	238	244
Actinomycosis	----	----	1	1	----	2

DISEASES (white cases only) *Approximate Populations.	*726,000 Manitoba	*3,825,000 Ontario	*906,000 Saskatchewan	*2,972,300 Minnesota	*641,935 North Dakota
Actinomycosis	----	----	1	----	----
Anterior Poliomyelitis	3	----	----	4	1
Chickenpox	197	1,162	88	----	100
Diphtheria	10	11	2	13	9
Diphtheria Carriers	1	----	----	----	----
Dysentery—Amoebic	----	----	----	8	----
Bacillary	----	----	----	1	----
Encephalitis, Epidemica	1	----	----	----	2
Erysipelas	1	7	3	----	----
Influenza	7	200	27	2	43
Jaundice—Infectious	----	4	----	----	----
Measles	76	656	300	38	24
Measles—German	6	119	11	----	----
Meningococcal Meningitis	----	7	----	8	4
Mumps	152	545	121	----	----
Ophthalmia Neonatorum	----	----	----	----	----
Puerperal Fever	----	----	----	----	----
Scarlet Fever	45	331	15	339	94
Septic Sore Throat	2	2	1	----	3
Smallpox	----	----	----	----	1
Trachoma	----	----	----	----	4
Tuberculosis	64	216	34	10	18
Typhoid Fever	----	4	----	1	2
Typhoid Fever Carriers	----	----	----	----	----
Typhoid Paratyphoid Fever	----	2	----	----	----
Undulant Fever	1	6	----	19	----
Whooping Cough	18	115	10	36	18
Gonorrhoea	114	515	----	----	22
Syphilis	30	330	----	----	18

DEATHS FROM COMMUNICABLE DISEASES

March, 1945

Urban—Cancer, 38; Pneumonia (other forms), 9; Tuberculosis, 9; Pneumonia Lobar, 4; Influenza, 2; Typhoid Fever, 2; Disease of pharynx and tonsils, 2; Diphtheria, 1; Erysipelas, 1; Lethargic encephalitis, 1; Measles, 1; Syphilis, 1; Disease due to viruses, 1; Disease caused by Helminths, 1; Septicaemia, 1; Dysentery, 1. Other deaths under 1 year, 25. Other deaths over 1 year, 197. Stillbirths, 20. Total, 317.

Rural—Cancer, 23; Pneumonia (other forms), 8; Tuberculosis, 6; Influenza, 1; Pneumonia Lobar, 1; Typhoid Fever, 1; Whooping Cough, 1; Disease of pharynx and tonsils, 1; Septicaemia, 1. Other deaths under 1 year, 22. Other deaths over 1 year, 103. Stillbirths, 11. Total, 179.

Indians—Tuberculosis, 5; Whooping Cough, 4; Pneumonia (other forms), 3; Influenza, 2; Measles, 1; Undulant Fever, 1. Other deaths under 1 year, 5**. Other deaths over 1 year, 2. Stillbirths, 0. Total, 23**.

* Whites on Indian Reserves.

♦

Cases of communicable diseases notified to the Department are running along with about their usual or a little lower rates of incidence. We are pleased to see diphtheria down to ten cases but at this season it usually decreases. One case of smallpox is reported in North Dakota.

By the time you receive this issue of the Review if we are going to have many cases of **poliomyelitis** or **encephalitis** this year they will be beginning to show up in increased numbers. This might be borne in mind.

On account of the bad roads in the rural areas of Manitoba this spring, not so many immunization clinics were held. September is usually a lovely month — why not start planning now to hold clinics then?

Department of Health and Public Welfare

Whooping Cough

The following is an abstract of an address presented by Dr. Nelles Silverthorne of Toronto before the annual meeting of the American Academy of Pediatrics in St. Louis in 1944 and published in the Journal of Pediatrics in December, 1944.

Dr. Silverthorne reviews the disease whooping cough in a general way, dealing with both clinical and laboratory aspects.

"In the study of a disease from a research standpoint, often attention is not focused on the particular aspects of the clinical course of the disease. Many researches on infectious diseases begin with an approach to the problem similar to diphtheria, namely, a toxin and antitoxin is developed. Whooping cough clinically cannot be compared to a disease where the toxin factor is paramount. The child with whooping cough usually is not very ill and often there is no catarrhal element so commonly mentioned. The child with whooping cough is often well, running about, the only symptom being a night cough with no clinical signs or symptoms during the day. With these few observations in mind it is difficult to believe the antigens consisting only of toxin, or therapeutic serum consisting only of antitoxin per se, have any real place in the prevention and treatment of whooping cough. Reference to our studies will be made later concerning skin tests, vaccines, and serums used in immunization and treatment."

Diagnostic Methods

Dr. Silverthorne cites experiences and methods from the wards and laboratories of the Hospital for Sick Children and the Department of Paediatrics, University of Toronto, and from the Connaught Laboratories, University of Toronto. He states that:

"Usually two or three cough plates are used. One or two natural spasms are sufficient to obtain positive results. Failing this, pressure on the suprasternal notch over the trachea most often elicits a cough. The plates are then incubated from two to five days and examined for typical colonies with a hand lens on the second, third, fourth, and fifth days. From photographs of actual cough plates taken from two to three days after the onset of cough, it can be seen that myriads of typical colonies are present. One cough plate was positive in pure culture, a most unusual occurrence. Results from the examination of cough plate cultures from large groups of children with whooping cough reveal that many are positive in the first week of the cough. In our series it has been as high as 94 per cent.

There have been suggestions from time to time that it was more difficult to obtain positive results with the use of cough plates in children under 2 years of age than in children from 2 to 14 years of age. There is no doubt that it is more difficult in infants to obtain a cough that is satisfactory for culture. Our results, however, show the percentage positive cultures in the 0 to 2-year group to be the same as in the 2 to 14-year group. With care, the cough plate is a reliable aid to diagnosis. A physician took plates from his two children and himself. The cough plates from the first child to develop the disease were positive for the first three weeks, then negative the fourth and fifth weeks. Those from the second child were negative for two weeks, then revealed positive cultures each week for the first three weeks and negative cultures the fourth and fifth week. The culture from the physician was negative each week for five weeks. In a recent study we have made a comparison of the results of direct smear of nasal mucus, culture of nasal mucus, and cough plate cultures. There have been other workers in the United States who previously reported the use of nasal mucus cultures and cough plate cultures. The results of the examination of eighty-seven children were as follows:

Thirty-three children were not suffering from whooping cough. Direct smears or nasal mucus from these showed the absence of typical gram-negative bacilli in twenty-nine instances and the presence of gram-negative bacilli in four instances. All nasal mucus and cough plate cultures were negative. Of fifty-four children with whooping cough forty-four children showed gram-negative bacilli in the direct smear of nasal mucus, eight were negative and two were questionable. There were twenty-three positive cultures of nasal mucus and thirty positive cough plate cultures, whereas thirty-one nasal mucus cultures were negative and twenty-four cough plate cultures were negative. In other words, cough plate cultures were positive in 55 per cent of instances and nasal mucus cultures were positive in 42 per cent of cases."

Vaccine and Serum in Prevention and Treatment

In reviewing the evidence accumulated during the last ten years with reference to the effectiveness of vaccines Dr. Silverthorne believes that the use of fresh strain phase 1 vaccines has been a real advance in the production of immunizing agents for the prevention of whooping cough.

"Eleven out of thirteen studies demonstrated that children may be successfully vaccinated against whooping cough. How or by what tests can we be sure that children are being injected with vaccines that are most likely to create immunity to whooping cough? Likely none are

as accurate as repeated observations made on vaccinated and control children to find out the incidence of whooping cough in the two groups."

Reference was made to the possibility of developing tests which would show whether or not immunity had been developed as a result of vaccine treatment. Description is also given of the tests which are made on the vaccines to determine antigenic value. There is evidence to indicate that there is a satisfactory virulence test for phase 1 Hemophilus pertussis and that this organism is a satisfactory antigen in the production of pertussis vaccine and pertussis immune serum.

Reference is also made to the possible use of immune serum for immediate prophylaxis and treatment. His experience indicates that there is reason to believe that this serum may be beneficial although it is difficult of evaluation.

Pertussis Toxin

"In recent years, a number of publications have appeared on the production and on the importance of pertussis toxin and antitoxin. We have had an opportunity in the last few years to make certain studies with pertussis toxin. From these studies I shall try to evaluate the importance of the clinical application of toxin and antitoxin. In our experiments we extracted toxin by the mechanical method originally described by Evans of England. The 'pertussis toxic material' thus obtained was tested in the skin of rabbits and injected intracardially into guinea pigs. The results of these studies demonstrated that in intracutaneous doses of 0.2 c.c. consisting of 0.1 mg., 0.05 mg., 0.025 mg., 0.012 mg., 0.006 mg., and 0.003 mg. of 'pertussis toxic material', necrosis of rabbits' skin occurred. They also showed that doses of 0.05 mg. of the toxic material kill guinea pigs. In colored photographs of the action of pertussis toxin in rabbits' skin and the protective effect of antitoxin areas of well-demarcated necrosis were seen where no antitoxin was injected and protection of rabbits' skin in areas where antitoxin was injected. Another slide revealed that in animals, for example, mice, there is no more protective effect from antigens containing 'pertussis toxic material' than with antigen made from killed suspension of the whole phase 1 micro-organism. From the fact that whooping cough is not a disease caused by toxin per se and from the experiments of others as well as from our own observations, it does not lead to the conviction that toxin and antitoxin products alone will play any decisive role in the prevention and treatment of whooping cough. As far as skin tests using toxin to demonstrate immunity to pertussis are concerned, in our experience there is no evidence that they are at all specific. The skin test as described by Strean was performed on a group of children with histories of having had and of not having had whooping cough. There was no evidence from these results that the skin test was specific. In our opinion it merely showed a difference in sensitivity of different individuals to pertussis toxin."

Improved Growth Conditions for Hemophilus Pertussis

Reference is made to the difficulties encountered by laboratories engaged in research in obtaining consistent and uniform growth with Hemophilus pertussis. Most laboratories found that blood was essential. Growth has been obtained in a semi-synthetic medium. A beef liver extract with growth-promoting properties was later developed and it was found that this extract did promote the growth of phase 1 Hemophilus pertussis. Dr. Silverthorne refers to a semi-synthetic medium which has been developed in the Connaught Laboratories in Toronto which allows the production of large quantities of pertussis vaccine in its phase 1 state without recourse to fresh human or animal blood. This vaccine fulfils all the characteristics of an active phase 1 product. It likely contains toxin if it is of any use in vaccine.

Discussion

"I should like to review briefly the results of the various advances made in whooping cough. (a) The early work of European and American investigators have demonstrated that with proper care and trained personnel, diagnostic methods in whooping cough could be applied in a very practical way. The media and the personnel are available or can be made available. In a large country such as this, either transfer of culture material to a central laboratory by air, or to station laboratories, is now the next practical step to be taken. Cough plate cultures are reliable in 90 per cent of cases in the first week of the disease. (b) There are now, especially in America, well-controlled clinical and laboratory studies which point to the fact that, with phase 1 pertussis vaccine, large numbers of children may be immunized. Additional studies on a large scale, in countries where isolated towns exist, would help to confirm these findings. One group of communities could be vaccinated, the others left as controls. I feel certain that whooping cough would ultimately be prevalent in the control villages. (c) In recent years there have been a number of studies on pertussis toxin and antitoxin. In our opinion it seems that from a clinical standpoint and from the researches so far carried out, there does not seem to be any justification to believe that the disease is a 'toxin-antitoxin' disease and certainly no convincing evidence that toxin or antitoxin products per se are adequate to deal with the

prevention and treatment of whooping cough. (d) Finally from researches of Hornibrook and McLeod we have been able to develop improved methods of growth for Hemophilus pertussis. By means of these less tedious methods the production of large quantities of vaccine can be made available."

Summary

"1. Diagnostic methods are reliable and could with proper laboratory personnel and material be made available as an aid to physicians.

2. Evidence in the last ten years has been constantly accumulating which points to the fact that children may be successfully immunized against whooping cough.

3. Pertussis toxin and antitoxin per se are not reliable products to use in the prevention and treatment of whooping cough. There is more evidence which favors the use of whole micro-organism vaccine and anti-bacterial serums for use in this disease.

4. Pertussis skin tests using toxin are not reliable indices of immunity to whooping cough.

5. More satisfactory culture media have been developed for diagnostic culture work and for the production of pertussis biologic products.

In conclusion let me say that if every physician makes certain to vaccinate and revaccinate children with phase 1 vaccines, whooping cough may well become a disease of the past."

Book Reviews (Continued from page 304)

My Second Life—Continued

is so very good, maybe. But it is different! My God, how it is different!" "Oh, well! Subject's dead. You couldn't have made him any blinder. Maybe he'll see in Heaven. . . . Now, **your** turn, Herr Doctor. When **you** try, always pray a little at the outset. But see what you can do. I'll shut my eyes till you've finished. Terrible, very terrible!" After his return to America Dr. Shastid practiced his specialty and wrote largely upon it, especially for Wood's "American Encyclopedia of Ophthalmology," to which he contributed over 3,000 articles. He also wrote a history of his subject, which is mentioned by Garrison.

Dr. Shastid tells many interesting stories of the early days. For example, there is one about his father, so weary as to be barely able to hold his seat in the saddle but, nonetheless, dragging himself off to see the wife of a very hostile neighbour on the plea of urgency. At the end of a long journey he found no patient—only an exulting enemy who beat him up with impunity. Years later he was again called and again he went, but before looking at the patient (there was one this time) he beat up the husband and evened the score.

Many doctors, in all periods, have gathered part of their knowledge from those irregular "lady doctors" whose chief claim to authority is their age and whose usual designation is "wise women." From such a one Withering learned the secret of digitalis, and from another such Dr. Shastid might have got the secret of liver. This old lady had found "by actual tryin' " that the best medicine for "littleness of blood" was liver, and while anaemic patients obviously got well on her treatment, every one (except the ignorant and including the elder Dr. Shastid) laughed at her.

There is a story of a negro doctor whose skill was great, and who operated upon a white child with a club foot. In the author's words, "I tell you the very simple truth when I say that Stromeyer himself could have done no better operation." After the child could walk Dr. Shastid one day heard an argument in the hospital yard, and beheld the little coloured doctor and a great monster of a white man engaged in bitter controversy. "Yes," shouted the white man, "you did a good enough operation. But if you think I'm going to pay twenty-five dollars to a dirty nigger for just half of one bour's work you're a blank, blank, blank, etc." He flung three dollars upon the lawn and said, "Pick 'em up, damn you, and you can have 'em. And that's all you'll get."

Part of the book is devoted to the author's views upon war and his efforts to introduce a law demanding that a plebiscite be taken before his country could help warring nations or could go to war itself. It is fortunate that he did not succeed, for if he had there would have been no lend-lease and he would by now be sadly rueing his fate. There are some errors which should be corrected. For example, Lloyd-George is referred to as "Prime Minister of the whole British Empire." He also confuses the Listers—father and son—including both under the heading "Sir Joseph Jackson Lister," thus giving to the father (Joseph Jackson) a knighthood to which he was not entitled, and depriving the son (Joseph) of his barony.

There is much interesting and entertaining reading in the 1,174 lavishly illustrated pages of this book, which is published by George Waht, Publisher to the University of Michigan, Ann Arbor, Michigan, and sells (in the U.S.A.) for $11.00. "My Second Life," by Thomas Hall Shastid, A.M., M.D., LL.B., Sc.D., F.A.C.S., F.A.C.P., etc.—J. C. H.

♦

He destroys his health by laboring to preserve it.—Virgil.

In Pregnancy

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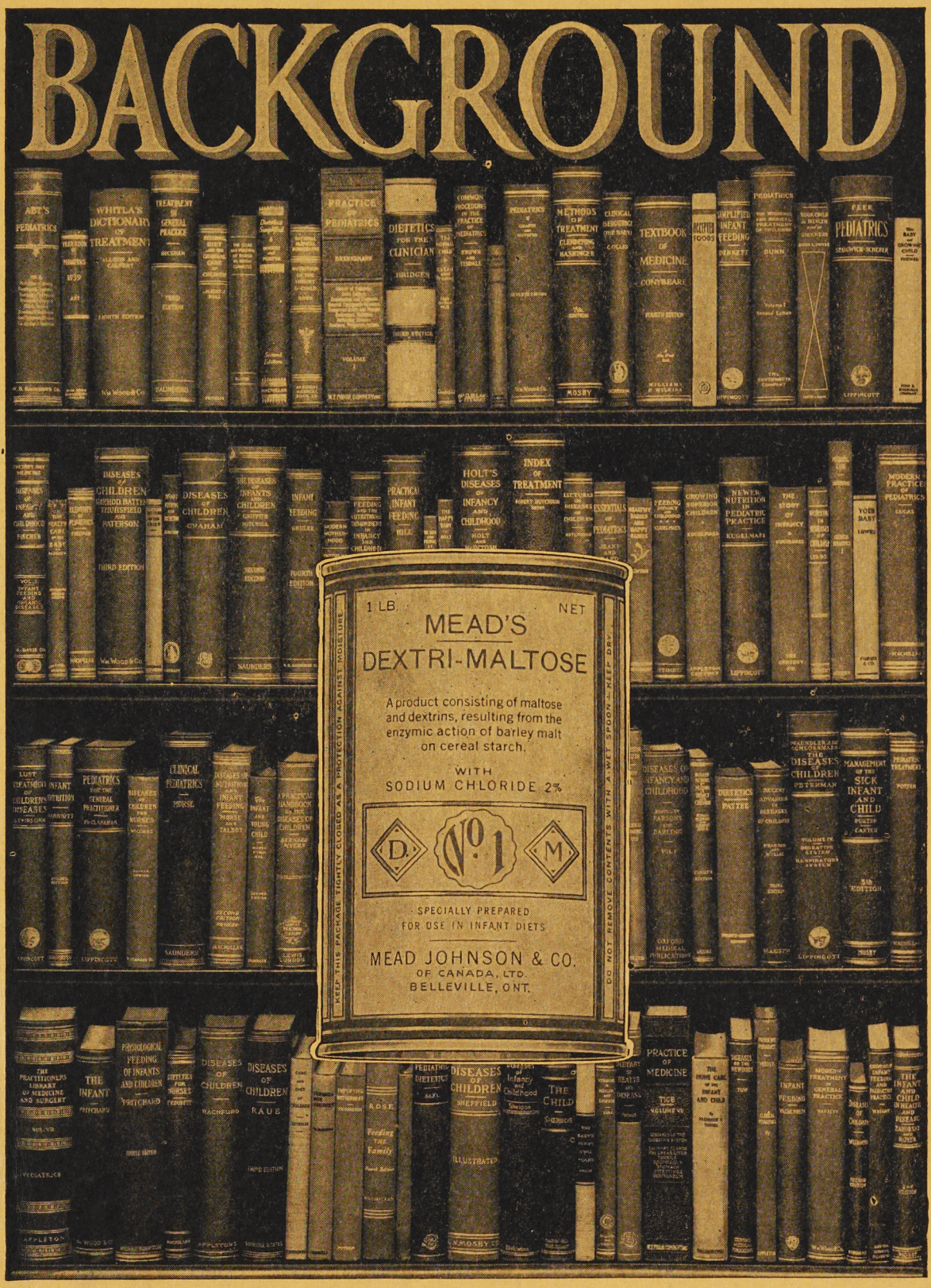

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